B.A., B.Sc., B.Com, B.C.A., PG Course Outcomes may be listed as follows :

B.A. ENGLISH

S.NO.	COURSE	COURSE OUTCOME
1.	**ENGLISH: B.A. 1st SEMESTER**	After the completion of the course: ● Students will learn the world of Literature through value-based writing. ● Students will develop individual perspective in the essays, and they will be sensitized towards environment and social issues. ● The students will develop the basic concepts of grammar. ● Students will learn the basic mechanism and acquire skills to transcribe and learn the correct pronunciation of words.
2.	**ENGLISH: B.A. 2nd SEMESTER**	● To develop the students' abilities in the correct usage of English grammar. ● Students will broaden their vocabularies and develop their appreciation of language. ● Students will develop and enhance their ability as a critical reader and thinker by adapting philosophies of A.P.J Abdul Kalam and Swami Vivekanand. ● Improve the students' ability to express and communicate well in writing.
3.	**ENGLISH: B.A. 3rdSEMESTER**	● Students will learn to critically analyse poems to identify the themes and ideas outlined in them. ● Students will understand and appreciate poetry as a literary art form. ● It will broaden their vocabularies and develop their appreciation of language. ●To make students familiar with correct usage of English grammar in writing and speaking.
4.	**ENGLISH: B.A. 4th SEMESTER**	● To enhance the linguistic and literary skills of the students. ● To introduce students with different forms of drama. ● To introduce students with different aspects of spoken communication i.e Phonetics, syllable which will improve their communication skills. ●Students will be able to express their ideas in writing and speaking in an organised and systematic way
5.	**ENGLISH: B.A. 5th SEMESTER**	●Understand the origin and development of novel as a literary genre. ●Use grammatical structures accurately ●Use varied sentence beginnings (introductory prepositional phrases, participial phrases, adverbial clauses, adjectival phrases) ●Use appropriate organization and order of words, sentences, and paragraphs within an essay
6.	**ENGLISH: B.A. 6th SEMESTER**	●To introduce students the concept of literary term Drama and its forms. ●To enhance and develop creativity of précis writing, letter writing and e-mail writing among students. ●Use a variety of accurate sentence structures. ●To enable the students to apply their critical thinking and ability to solve comprehension.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

B.A. HOME SCIENCE

7.	**HOME SCIENCE: B.A. 1st SEMESTER**	After the completion of the course, students will be able to: ●To learn basic concept of home management. ●Importance of human and non-human resources in home management. ●Learning about family budget and types of budgets for effective management of money. ● To learn about consumer education.
8.	**HOME SCIENCE: B.A. 2nd SEMESTER**	●To learn meaning and objectives of health education and understand about Mental health. ●Make student aware about rain harvesting. ●Acquiring knowledge of infectious disease and health hazards of modern age. ● Develop understand about common health problems among women.
9.	**HOME SCIENCE: B.A. 3rd SEMESTER**	●To learn basic concept of fibres and weaving. ●To learn about deep knowledge of fabrics and garments. ●To learn about dying and printing. ●To learn basic concept of detergents and soaps.
10.	**HOME SCIENCE: B.A. 4th SEMESTER**	●To learn about basic of food and its nutritional value. ●Make student aware about food groups and food guide pyramid. ●To learn about different Nutrients, functions, sources, deficiency diseases. ●To learn basic concept of cooking and its methods.
11.	**HOME SCIENCE: B.A. 5th SEMESTER**	●To learn about Home Science Extension Education. ●To understand the basic concept of Communications and its element. ●Make student aware about food preservation and basis of their self- life. ●Modern industrial food preservation techniques.
12.	**HOME SCIENCE: B.A. 6th SEMESTER**	●To learn about Human Development- concept, Current Trends, and Issues in Human Development. ●To understand Growth and Development during prenatal stage- Female Reproductive System and Pregnancy ●To know basic concepts of Stages of Development like infancy, childhood, late childhood, and adolescent. ●To learn about children with special needs.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

B.A. POLITICAL SCIENCE

13.	**POLITICAL SCIENCE: B.A. 1st SEMESTER**	After the completion of the course, students will be able to: ● To Introduce students about the Indian constitution and examine the fundamental rights and directive principles. ● To know about Institutional structure and functioning and role of supreme court in India. ● Studying the process of interaction between society and politics in contemporary India-caste, class, region, and religion. ● Creating awareness about social movements.
14.	**POLITICAL SCIENCE: B.A.2nd SEMESTER**	● To learn basics of Politics And also learn about Decline and Resurgence of Political Theory. ● Explaining State and theories of state in detail. ● Assessing the concept of Liberty and Equality and their relationship. ● To introduce students about democracy, Models of Democracy, citizenship, and civil society.
15.	**POLITICAL SCIENCE: B.A.3rd SEMESTER**	● Assessing the concept of Comparative Political Analysis and Comparing Regimes (Authoritarian and Democratic) ● Explaining the concept of political system: Parliamentary and Presidential, Federal, and Unitary ● To learn student about the concept of electoral system and party system. ● Explaining debates on the nature of state and changing nature of nation state in the context of globalisation.
16.	**POLITICAL SCIENCE: B.A.4th SEMESTER**	● Analysing the concept of rights and duties (organisations and functions) ● Meaning, Characteristics, and obstacles in the way of liberty and equality. ● To know the development of politics and social change (Reason, characteristics, and obstacles) ● Analyse the RTI and Consumer Protection Amendment.
17.	**POLITICAL SCIENCE: B.A.5th SEMESTER**	● Investigating the nature and scope of comparative politics. ● Analysing the approaches of comparison system, Analysing the input-output, structural functional approach. ● To explain the political culture, Political development, and constitutionalism (History, Nature, Type, and problems) ● Explaining constitutional structure (Formal Executive, legislature) and informal structure(Political parties and pressure groups)
18.	**POLITICAL SCIENCE: B.A.6th SEMESTER**	● Critical analysis the features of constitution of UK and USA. ● Conducting and intensive comparative study of the executive legislative and judiciary of UK and USA. ● Comparative studies of structures, functions and roles of political parties and pressure groups of UK and USA. ● Discussing the electoral processes, voting behavior of UK and USA.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

B.A. HISTORY

19.	**HISTORY: B.A. 1st SEMESTER**	After the completion of the course, students will be able to: ● Reconstruction and Interpretation of History. ● Pre-Historical Age ● Ancient Cultures like Harappan and Vedic Culture. Their political Socio, Economic, Religious and Cultural Life ● Religious Movements like Buddhism & Jainism. ● Various Empires: Mauryan, Kushan, Satavahana, Chola, Gupta and Pushpabhutis ● Foreign Invasions and important of trade routes.
20.	**HISTORY: B.A. 2ndSEMESTER**	● The sources of Sultanate and Mughal period. ● Establishment expansion and consolidation of Sultanate ● Consolidation, Expansion and Administrative Institutional Development during Sultanate and Mughal Empire ● Economic aspects during Medieval period and the Socio-Religious life. ●To promote and understanding of Chalukaya, pallava and vardhan dynasty. ●Introduction of Arabs, struggle for power in northern India.
21.	**HISTORY: B.A. 3rdSEMESTER**	● Disintegration of Mughal Empire and rise of new successor rate. ● British Conquest of India and Consolidation of British Rule and Resistance ● Land revenue system under the company's rule in India. ● Emergence of Nationalism and Freedom of India. ● Knowledge of Non-cooperation movement and Quit India Movement. ● Knowledge about causes of emergence of Nationalism and establishing of Indian national Congress.
22.	**HISTORY: B.A. 4thSEMESTER**	● The sources to know the History of Haryana (Ancient, Medieval and Modern) and freedom movement of Haryana in detail. ● How the state was formed in ancient times and Rise of Powers in Haryana during early medieval period. ● Battles fought and Revolts that took place in Haryana during Medieval period ● Political Developments in 18th Century like Nawabi,Sikhs,,Marathas and East India Company. ● Political and Social reaction of British Rule by the people of state and the spread of AryaSamaj and Modern Education in Haryana
23.	**HISTORY: B.A. 5thSEMESTER**	● Pre-history cultures ● Bronze Age civilizations i.e., Sumer and Egypt (Socio – Economic structure) and Iron Age Civilization i.e., Greek, and Roman (Polity, Socio – Economic structure) ● Feudalism in Medieval Europe and Role of Church ●Rise of Islam and Evolution of State and Society under Islam.
24.	**HISTORY: B.A. 6thSEMESTER**	● Economic Developments i.e., Mercantilism, Capitalism, Agricultural Revolution, Technological Revolution, and Imperialism. ● Political developments with special reference to French and Russian Revolution, liberalism in Britain and unification of Italy and Germany. ● History of Far East i.e., China and Japan ● World in Crises leading to First and Second World War

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

B.A. PSYCHOLOGY

25.	**PSYCHOLOGY: B.A. 1st SEMESTER**	After the completion of the course: ●Students will be able to understand history, emergence, scope and methods of psychology. ● Students will be benefitted to know about visual and auditory sensory processes and perception of form and depth. ●Students will gain knowledge about the nature and types of emotions and motivational aspects. ●Students will understand fundamental knowledge about the nature and approaches of intelligence and personality. ● Students will be able to administer/conduct/interpret the psychological tests/experiments in the areas of sensation, perception, emotions, motivation, intelligence, and personality.
26.	**PSYCHOLOGY: B.A. 2ndSEMESTER**	● To introduce students about history of social psychology and approaches towards understanding social behaviour. ●Students enable to understand, meaning of socialisation, and understand the meaning of attribution, and how it please role in our social life. ●Help students that how interpersonal attraction plays an important role and understand about voluntary behavior which benefit other people or society such as helping, sharing, and cooperating. ●Here students also acquire the knowledge about aggression that how frustration led to aggression, and how it influences our personality
27.	**PSYCHOLOGY: B.A. 3rd SEMESTER**	●To introduce the history of social psychology and approaches toward understanding social behavior to students. ●To enable the students to understand, meaning of socialisation, and understand the meaning of attribution, and how it please role in a social life ●To help student that how interpersonal attraction plays an important role and understand about voluntary behaviour intended to benefit another. ●Here students also acquire the knowledge about aggression and that how frustration leads to aggression and how it influences our personality.
28.	**PSYCHOLOGY: B.A. 4th SEMESTER**	●This course, introduced to students about human development and its biological, social, and cultural factors. ●To enable the students to understand about prenatal development and infancy development, its characteristics, and hazards. ●To head to student to get knowledge about childhood and adolescent period and their characteristic and problems in adjustment. ●To help the students to get knowledge about adulthood and aging-changing and problems.
29.	**PSYCHOLOGY: B.A. 5th SEMESTER**	●This course introduced to students, the concept of normality and abnormality and its characteristics and able to understand biological psychodynamic behaviour model. ●To enable the students to understand DSM system and diagnostic assessment like case history, interview, and projective techniques. ●It helps the students to understand about generalised anxiety disorder, obsessive compulsive disorder, and phobic disorder and to prevent from it ●Students also get knowledge about what are mood disorders and its causes as well as symptoms, and gain knowledge about schizophrenia that

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		its nature and what are the causes behind it.
30.	**PSYCHOLOGY: B.A. 6th SEMESTER**	●To enable students to understand about applied psychology and role of applied psychology in alive and get knowledge about it ●Help students to develop their educational vocational and psychological potentialities, and thereby to achieve an optimal level of personal happiness and social usefulness ●To help the students to identify behaviours and experiences that promote health and influence the effectiveness of healthcare and awareness about how psychological factors plays an important role in physical illness, lifestyles, and health. ●To enable the students to develop their knowledge about forensic psychology, and law of eyewitness memory.

B.A. FINE ARTS

31.	**FINE ARTS: B.A. 1st SEMESTER**	After the completion of the course: ●Students will learn basic concepts of life elements of art and art scope. ●Students will also learn about medium of art and general art. ●Students will get to learn about still life in different medium like watercolors, pencil, and pastel colors.
32.	**FINE ARTS: B.A. 2nd SEMESTER**	●Students will gain knowledge of sculptures of different Dynasties. ●Students will learn about landscape and still life in different medium. ●Student will enhance their creativity and unleash it by practice of creative landscapes.
33.	**FINE ARTS: B.A. 3rd SEMESTER**	●Student will learn about art of different dynasties ●Student will also get knowledge Early Indian paintings, murals miniatures, and Fresco composition ●Students will learn about perspective to fix the landscapes and other composition ●Also get the knowledge of six limbs of art and about the colours also.
34.	**FINE ARTS: B.A. 4th SEMESTER**	●Students will learn how to do advertisement by designing posters and uses forced us to convey social messages. ●They will learn about main features and main parts of posters. ●Students will learn how to compose the subjects in painting and show their creativity by doing this.
35.	**FINE ARTS: B.A. 5th SEMESTER**	●Student will learn history of Western countries like Renaissance, Baroque, Rococo, Cubism, etc. ●Student will learn General principle of art application. ●They will also get the knowledge about mean quality of art and technical aspects of art. ●They will learn content of art, beauty in art, specimen of art, like Sarnath Budha, Natraj image of Shiva.
36.	**FINE ARTS: B.A. 6th SEMESTER**	●Here students will learn how to design a poster to give any message. ●They will also learn about main quality and main parts of the poster they will make. ●They will also learn about body proportion to draw a human body smoothly and face proportion for portrait.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

B.A. PHYSICAL EDUCATION

37.	**PHYSICAL EDUCATION: B.A.1ST SEMESTER**	After the completion of the course: ●To introduce students about physical education and qualities and qualification needed for a physical education teacher. ●They will also get to know about the historical development of physical education like pre-independence, post-independence development and S.A.I, NSNIS and the role of these agencies. ●Student will learn about historical development of ancient Olympic Games as well as modern Olympic games and also know about Asian games and Commonwealth Games of India's performance in these games. ●They also get to know about the national sports awards like Arjuna award, Rajiv Gandhi Khel Ratna award, Dronacharya award, Bhim award.
38.	**PHYSICAL EDUCATION: B.A.2nd SEMESTER**	●To introduce students about health, dimensions, importance of health and characteristics of a healthy individuals. ●They also get to know about personal hygiene and First-Aid like drowning fracture, fainting and heatstroke. ●Students will learn about health and nutrition like components of a balanced diet and importance of balanced diet. ●Also get to know about the communicable disease and non-communicable disease and symptoms, prevention and control of AIDS hepatitis, tuberculosis, malaria etc
39.	**PHYSICAL EDUCATION: B.A.3rd SEMESTER**	●To introduce student to psychology of sports like importance of sport psychology, motivation, and individual differences. ●They also get to know about physiology like respiratory system, circulatory system and types and functions of bones. ●Students will know about posture and Postural deformities like types of good posture, causes of poor posture and importance of good posture. ●Students get to know about different types of tournaments like procedure to draw fixture for singles knock-out and league tournaments.
40.	**PHYSICAL EDUCATION: B.A.4th SEMESTER**	●To introduce students meaning of sports training its aims and objectives. ●Students will get to know about warming up its methods and types of warming up and types of exercises. ●Students also get to know about physical fitness, components and factor influencing physical fitness. ●They get to know about fatigue, type, symptoms, causes and remedies of fatigue.
41.	**PHYSICAL EDUCATION: B.A.5th SEMESTER**	●To introduce students about yoga and Astang yoga and its steps. ●Students will get to know about different type of asanas like sukhasana, vajrasnan, Surya namaskar etc. ●They also get to know about yoga breathing like Pranayama and benefits of Pranayama. ●Students will know about ShudhiKriyas and its process.
42.	**PHYSICAL EDUCATION: B.A.6th SEMESTER**	●To introduce student about organisation and administration in physical education. ●Students get to know about purchase, care and maintenance of sports equipment and play fields. ●They also get to know about purpose of budget, types of record and qualities of a good administrator. ●Students also get know about the types of tournaments and preparation of fixtures.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

B.A. ECONOMICS

43.	**ECONOMICS: B.A.1st SEMESTER**	After the completion of the course: ● To introduce students about basic understanding about the consumer behavior through different approaches. ● Students will understand the concept of a microeconomics ● They understand the basic concept of supply and its related concepts ● Students also Demonstrate the consumer equilibrium and production related concepts.
44.	**ECONOMICS: B.A.2nd SEMESTER**	● Students get to know about characteristics and assumptions, price determination on the P.C. equilibrium of the firm and industry in the short period and long period. ● Students will learn the characteristics of short period and long period equilibrium under monopolistic, competition and group equilibrium ● They will learn about characteristic of oligopoly, bertrand's model price, rigidity and price leadership. ● Concepts of Theory pricing, label theory and rent theory.
45.	**ECONOMICS: B.A.3rd SEMESTER**	● Students will be able to think critically following the economic way of thinking. ● Student will be able to understand the basic accept of macroeconomics and its various variables. ● Student will be able to understand the accounting of national income and balance payment analysis. ● They will learn about the money supply and role of central bank and different consumer theories.
46.	**ECONOMICS: B.A.4th SEMESTER**	● Student will be able to understand the basic concept of macroeconomics. ● Student will be able to learn the role of fiscal and monetary policy in economic development. ● They learn about the trade cycle and theories related to it. ● They will understand the concept of money in modern economy.
47.	**ECONOMICS: B.A.5th SEMESTER**	● Student will understand the concept of economic growth and sustainable development. ● They will understand that implacability of some critical growth models in economic development so far. ● They will learn about the different plans and policies formulated by Indian government for economic development. ● They learn different theories of economic development.
48.	**ECONOMICS: B.A.6th SEMESTER**	● Students will learn how international trade can result from economies of scale. ● Demonstrate the basic understanding about B.O.P on international transactions. ● They will be able to establish the relationship between foreign trade theory and economic development ● They will get to know about the relation of various international institution with India and basic understanding of terms of trade.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

B.A. SANSKRIT

49.	**SANSKRIT: B.A.1ST SEMESTER**	After the completion of the course: ● The main aim is to enrich student's mindset and inculcating moral values through educational stories and shlokas. ● Students will learn commendable work of classic literature by Narayan pundits Hitopdesh and Bhartrihati's Nitishatakam. Srimadbhagvad Gita's second chapter Sankhyayog' student will manage their cognitive, affective domain, confusion, and conflicts of mind.
50.	**SANSKRIT: B.A.2nd SEMESTER**	● Apart of Sanskriti, grammar likes shabad roop, dhatu roop, Chhand, Sandhi. ● Basic rules of translation have been included to end route. ● Grammatical base of the students is the main aim.
51.	**SANSKRIT: B.A.3rd SEMESTER**	● These courses mean to acquaint student with a view to give knowledge of ancient Indian dramatic system through Bhasa's Panchratram and Raghuvansh of Kalidas ● To familiar them with some commendable writers of classical Sanskrit literature, like banabhatta,Dandin,Subandhu,Ambikaduttvyasus and Vishnu Sharma
52.	**SANSKRIT: B.A.4th SEMESTER**	● Grammar is very important part of this language for making sentences to know appropriate meanings of text, oral communication and perfection through Samasa,krit pratyay,pratyahar sutra. ● Sanskrit patra lekhan,tadhit pratyay ,vachya parivartan translation and to make them familiar with Vardraj's simple analysis on sangya prakarnam.
53.	**SANSKRIT: B.A.5th SEMESTER**	● These courses aim to introduce the students with immortal creation of Abhigyan Shakuntalam, by mahakavi Kalidas. ● General outline of a vedic Sanskrit literature like Samhita, Brahman,Aaranayak upnishad.
54.	**SANSKRIT: B.A.6th SEMESTER**	● The courses intended for making the students acquainted with two of the highly adored mahakavya namely, Ramayan and Mahabharata to have impact of grand teachings of both Mahakavya, that both sanctify the teachings and beliefs of upcoming learner of Sanskrit ● To familiar them with examples of various Alankars and vadraj simple analysis of vibhaktyarth prakarnam and developing of writing skills through essay writing.

B.Sc SANSKRIT(2ND YEAR)

55.	**SANSKRIT: B.Sc. 3rd SEMESTER**	● These courses aim for making students acquainted with grand teachings of Ramayan, Mahabharata, upnishads, ShrimadBhagwat Gita, Chankyaniti, ● To introduce the students about the masterly piece of Sanskrit prose. ● For enriching students mindset through lofty teaching scattered in hitopdesh,a great repository of moral lessons
56.	**SANSKRIT: B.Sc. 4th SEMESTER**	● Commendable work of Sanskrit literature by Vishnu Sharma and Pandit Narayan learned by students. ● A part of a part of Sanskrit, grammar, like Svar sandhi,Shaba droop,Dhatu roop has been included to enrich the grammatical base of students.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

B.A. MUSIC INSTRUMENTAL

57.	**B.A. MUSIC INTRUMENTAL 1ST SEMESTER**	After the completion of the course: ● Student will learn different raag bhupali, yaman ,alhaiya bilaval. ● They will learn many definitions like Sangeet,Dhavani ,swar, Alankar suptak raag etc. ● They will learn description of following instruments like Tanpura and Sitar. ● They will learn about contribution of pundit Vishnu Narayan, Pandit Ravi Shanka, Ustaad Amil Khan. ● They will learn following taals: Teental, kherwa
58.	**B.A. MUSIC INTRUMENTAL 2ND SEMESTER**	● Students will learn different raag kafi, VrindavaniSarang and Hansdhvani. ● They will learn many definitions like Varna, Taal, Vadi-Samvadi-Anuvadi-Vivadi, Avirbhav-Tirobhav ● They will learn description of followingMargi and DesiSangeet,Jaatis of Raga: Audav-Shadav-Sampoorna ● They will learn about contribution of Tansen, Ustad Alauddin Khan, Bade Ghulam Ali Khan, UstadInayat Khan. ● They will learn description of following instruments Harmonium, Tabla. ● They will learn following talas 1) Ektaal 2) Jhaptaal 3) Rupak
59.	**B.A. MUSIC INTRUMENTAL 3RD SEMESTER**	● Students will learn notations of Raag behag, Bageshvra ● They will learn about short notes Alpatva,Avirbav,Tirabhav. ● They learn about contribution of Abdul Halim Zafar Khan of life sketch and Annapurna Devi. ● They wil learn detail description about instruments like Rudraveena and Sarangi. ● They will be capable to demonstrate talas by hand Ekgun and Dugun etc.
60.	**B.A. MUSIC INTRUMENTAL 4TH SEMESTER**	● Students will learn notation of Raag Malkauns,Sudhsarang and Des. ● They learn about taal teevra,tilwada and rupak. ● They will learn Gharans of sitar. ● They will learn Savrachatushtayi of Bharat. ● They will learn contribution of Panna lal Ghosh and Inayat Khan ● They will learn detailed description of tanpura and Tabla.
61.	**B.A. MUSIC INTRUMENTAL 5TH SEMESTER**	● The students will learn notation of raag miya ki todi,miyamalhar and Tilak. ● They will learn taal Dhamar,Sultal and jhaptal. ● They will learn contribution of ustad Mushta Ali Khan and pundit Nikhil Banerjee. ● They will learn role of Internet in popularising music. ● They will learn placement of Swaraz on Veena ● They will be capable to playone dhun in any raag.
62.	**B.A. MUSIC INTRUMENTAL 6TH SEMESTER**	● Students will learn notation ofRaag puria, Multani, and Rageshwari. ● They will be capable to write Dugun,Tigun in teental and ektaal. ● They will learn detailed description of Sarod and santoor. ● They will learn contribution of Ali Akbar Khan and Lalwani mishra. ● They will learn role of music in international cultural and exchange

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		●They were able to play and get in any of prescribed raag.

B.A. MUSIC VOCAL

63.	**B.A. MUSIC VOCATIONAL 1ST SEMESTER**	After the completion of the course: ●Student get to know about different raag bhupali, yaman ,alhaiya bilaval in detail. ●They will learn definitions like Sangeet,Dhavani ,swar, Alankar suptak raag etc. ●They will learn about following instruments like Tanpura and Sitar. ●They will learn about contribution of pundit Vishnu Naraya, Pandit Ravi Shankar, Ustaad Amil Khan. ●They will learn about different taals like Teental,kherwa.
64.	**B.A. MUSIC VOCATIONAL 2ND SEMESTER**	●Students get to know about raag kafi, VrindavaniSarang and Hansdhvani. ●They will learn definitions like Varna, Taal, Vadi-Samvadi-Anuvadi-Vivadi, Avirbhav-Tirobhav ●They will learn description of following Margi and Desi Sangeet, Jaatis of Raga like Audav-Shadav-Sampoorna ●They will learn about main personalities contribution in music-Tansen,Ustad Alauddin Khan, Bade Ghulam Ali Khan, UstadInayat Khan. ●They will learn about following instruments Harmonium, Tabla. ●They will learn following talas: Ektaal, Jhaptaal and Rupak.
65.	**B.A. MUSIC VOCATIONAL 3RD SEMESTER**	●Students will learn notations of Raag behag, Bageshvra ●They will learn about Alpatva,Avirbav,Tirabhav. ●They learn about Abdul Halim Zafar Khan of life sketch and Annapurna Devi. ●They wil learn instruments like Rudraveena and Sarangi. ●They will be capable to learn talas by hand Ekgun and Dugun etc.
66.	**B.A. MUSIC VOCATIONAL 4TH SEMESTER**	●Students will learn Raag Malkauns,Sudhsarang and Des. ●They will learn about taal teevra, tilwada and rupak. ●They will learn Gharans of sitar. ●They will learn Savrachatushtayi of Bharat. ●They will learn about Panna lal Ghosh and Inayat Khan ●They will learn detailed description of tanpura and Tabla.
67.	**B.A. MUSIC VOCATIONAL 5TH SEMESTER**	●The students will learn raag miya ki todi,miyamalhar and Tilak. ●They will learn taal Dhamar,Sultal and jhaptal. ●They will learn about ustad Mushta Ali Khan and pundit Nikhil Banerjee. ●They will learn about Swaraz on Veena
68.	**B.A. MUSIC VOCATIONAL 6TH SEMESTER**	●Students will learn Raag puria, Multani, and Rageshwari. ●They will be capable to write Dugun,Tigun in teental and ektaal. ●They will get detailed knowledge about Sarod and santoor. ●They will learn about Ali Akbar Khan and Lalwani mishra. ●They will learn role of music in international cultural and exchange.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

B.A./B.Sc MATHEMATICS

69.	**B.A./B.Sc. 1st SEMESTER ALGEBRA**	After the completion of the course: ● Students can understand review of matrices and linear dependence and independence of rows and columns of matrices. ● They learn about theorems on consistency of a linear equation and different forms of matrices. ● They get to get to know about relationship between roots and coefficient of general polynomial equation on roots. ● Students learn about nature of roots of an equation and Descarte's rule of signs and solution.
70.	**B.A./B.Sc. 1st SEMESTER CALCULUS**	● Student will learn about successive differentiation and circle of curvature. ● They learn about asymptotes in Cartesian and polar coordinates and types of cusps. ● They also get to know about reduction formula and volumes and surfaces of solids of revolution. ● They will learn about multiple integrals like double integrals, triple integrals, and a volume of solids by triple integrals.
71.	**B.A./B.Sc. 1st SEMESTER MATHEMATICAL LAB-1**	● Students will be able to use met lab for interactive computations. ● They get familiar with memory and file management in mathematics.
72.	**B.A./B.Sc. 2ND SEMESTER NUMBER THEORY AND TRIGNOMETRY**	● Understand the concepts of Divisibility, Congruence, Greatest Common Divisor, and prime factorization etc. ● Understand the applications of Fermat‟s, Wilson‟s and Chinese Remainder Theorem etc. ● Evaluate trigonometric and inverse trigonometric functions and solve trigonometric equations and applications. ● Student will apply and prove trigonometric identities. ● They will understand the applications of of De Moivre‟s Theorem.
73.	**B.A./B.Sc. 2ND SEMESTER VECTOR CALCULUS AND GEOMETRY**	● Memorize the concepts of directional derivatives with geometrical interpretations. ● Apply gradient,Divergence,curl and laplacian to solve problems involving normal vectors to level surfaces. ● Explain the concept of vector integration like line integral, surface integral etc. ● General equation of second degree tracing of conics,pole of lineto the conic. ● Apply Guass Divergence Theorem, Stoke‟s theorem and Green‟s Theorem to evaluate surface and volume integrals.
74.	**B.A./B.Sc. 2ND SEMESTER MATHEMATICAL LAB-2**	● Able to program scripts and functions. ● Using the Mat lab for development environment.

75.	**B.A./B.Sc. 3RD SEMESTER ADVANCED**	● Learn about the basic principles of uniform continuity and mean value theorem. ● Have knowledge of calculus involving the fundamental tools such as

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

	CALCULUS	Limits, Continuity and Differentiability of functions of two variables. ● Taylor's theorem for functions of two variables and implicit function theorem. ● Langrange's method of multipliers, change of variable in double and triple integrals.
76.	**B.A./B.Sc. 3RD SEMESTER PARTIAL DIFFERENTIAL EQUATION**	● Establish a fundamental familiarity with partial differential equations ● Solve linear and nonlinear partial differential equations. ● Classify partial differential equations into hyperbolic, parabolic, and elliptic types and transform them into canonical form ● Solve boundary value problems related to Laplace, heat, and wave equations.
77.	**B.A./B.Sc. 3RD SEMESTER STATICS**	● Construct free body diagrams and calculate the reactions necessary to ensure static equilibrium. ● Determine the resultant of two like parallel forces and two unequal unlike parallel forces acting on a rigid body. ● Compute the position of centre and moments of force about a point on a rigid body. ● Explain the equilibrium of rough bodies resting in contact with one another. ● Apply the concept of centre of gravity to uniform rod, uniform lamina, triangular lamina etc.
78.	**B.A./B.Sc. 4TH SEMESTER SEQUENCE AND SERIES**	● Understand the applications of infinite sequence. ● Understand the applications of infinite series. ● Determine if an infinite sequence is convergent or divergent. ● Find the sequence of partial sums of an infinite series. ● Determine if a geometric series are convergent or divergent. ● Find the sum of a convergent geometric series. ● Determine if an infinite series is convergent or divergent by selecting the appropriate test from the following: (a) test for divergence (b) integral test (c) p-series test (d) the comparison tests (e) alternating series test (f) absolute convergence test (g) ratio test and (h) root test.
79.	**B.A./B.Sc. 4TH SEMESTER SPECIAL FUNCTIONS AND INTEGRAL TRANSFORMS**	● To solve differential equations by power series solution method. ● Define the special functions like Bessel‟s function, Legendre polynomial,Hermite polynomials and explain their properties. ● Apply Laplace and Fourier transforms to solve differential equations.
80.	**B.A./B.Sc. 4TH SEMESTER PROGRAMMING IN C AND NUMERICAL METHODS**	● Write an algorithm and flowchart for the given problem. ● Write and execute the programs in C language. ● Solve an expression containing different operators used in C language. ● Find the approximate roots of algebraic and transcendental equations. ● Solve linear system of equations using an appropriate numerical method.
81.	**B.A./B.Sc. 5TH SEMESTER REAL ANALYSIS**	● Learn fundamental properties of the real numbers that lead to the formal development of real analysis. ● Understand applications of Riemann Integral and Improper Integral. ● Understanding of limits and how they are used in sequences, series, differentiation, and integration. ● Understand how sequences are convergent and divergent in a Metric

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		Space.
82.	**B.A./B.Sc. 5TH SEMESTER GROUPS AND RINGS**	● Understand and analyse algebraic structures like group, ring and field and their properties. ● Construct substructures. ● Compare different structures. ● Define and explain the properties of homomorphism on different algebraic structures
83.	**B.A./B.Sc. 5TH SEMESTER NUMERICAL ANALYSIS**	● Explain the theoretical and practical aspects of the use of numerical analysis. ● Establish the limitations, advantages, and disadvantages of numerical analysis. ● Apply the numerical methods for various mathematical operations and tasks, such as solution of linear and non-linear equations, differential equations etc. ● Obtain the approximate solution to otherwise intractable mathematical problems ● Implement numerical methods for a variety of multidisciplinary applications

84.	**B.A./B.Sc. 6TH SEMESTER REAL AND COMPLEX ANALYSIS**	● Understand the concept of Limits, Continuous, Uniformly Continuous and Differentiable functions of Complex variable. ● Know that Complex numbers provide a satisfying extension of the Real numbers. ● Understand that C-R equations are necessary conditions for an analytic function. ● Development of the mathematical skills to solve problems. ● Understand about the applications of Elementary Functions and Mobius Transformations
85.	**B.A./B.Sc. 6TH SEMESTER LINEAR ALGEBRA**	● Test the linear independence of vectors. ● Find the dimension and basis of a given vector space and null space and rank space of a linear transformation. ● Find eigen values and eigen vectors of linear transformations. ● Write down the matrix representing a linear transformation under a given basis and determine how the matrix changes if the basis is changed. ● Find the length of a vector in inner product space. ● Explain orthogonality and orthonormality of set of vectors.
86.	**B.A./B.Sc. 6TH SEMESTER DYNAMICS**	● Construct free body diagrams and calculate the reactions necessary to ensure dynamic equilibrium. ● Explain the difference between two concepts of mechanics i.e., the rest and motion of body. ● Explain the motion of a lift moving upward or downward ● Solve the problems related to relative motion and simple harmonic motion ● Apply laws which are the foundation of mechanics Understand the motion of particle projected in a direction oblique to the direction of gravity

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

B.Sc (MEDICAL) ZOOLOGY

87.	**B.Sc(MEDICAL) (ZOOLOGY) 1ST SEMESTER**	After the completion of the course: ● Students will be able to understand the morphology, anatomy and behaviour ofprotozoans, coelenterates, porifera, arthropoda, mollusca and echinodermata through study of invertebrates. ● Able to understand the economic importance of all non-chordates as of food, ornaments, and to maintain ecological cycles. ● Able to understand the study and diseases related to all these invertebrates in human life.
88.	**B.Sc(MEDICAL) (ZOOLOGY) 2nd SEMESTER**	● Able to understand the knowledge of morphology, Anatomy and behaviour of hemichordates, urochordates,cephalochordates,cyclostomes, fishes, reptiles,amphibians,aves and mammals ● Able to understand the knowledge of various system their anatomy and physiology through this
89.	**B.Sc(MEDICAL) (ZOOLOGY) 3rd SEMESTER**	● Students will have knowledge of all chordate's animals, their behaviour their diversity, their systematic study, and their interaction with environment. ● Students will have knowledge off human physiology as digestive system, nutrition, biochemistry of our body. ● Knowledge of biochemical their formation and regulation in our body. ● Knowledge of diversity among animals. ● Practical knowledge of physiology experiments, animals' morphology, which is helpful in research work.
90.	**B.Sc(MEDICAL) (ZOOLOGY) 4th SEMESTER**	● Knowledge of chordates, their systematic study, behaviour, life cycle, and interaction with humans. ● Knowledge of respiration, circulation, excretion, reproduction in humans ● Knowledge of hormones and their regulation in human body, which is helpful in research work. ● Practical knowledge of higher chordates physiology experiments helpful in higher study and research.
91.	**B.Sc(MEDICAL) (ZOOLOGY) 5th SEMESTER**	● Knowledge of fish, fisheries, and their capture and culture which is very helpful and earning of life. ● Provides a better understanding of aquatic animals and their environment. ● Knowledge of our ecosystem and its interaction, with living being helpful and maintenance of mother nature. ● Knowledge of existence of human on Earth, and its evaluation for modern man, so they can implement this knowledge information of a better society.
92.	**B.Sc(MEDICAL) (ZOOLOGY) 6th SEMESTER**	● Students will have knowledge of pest and their management, so that this knowledge can be implemented in daily life in protection of our crops. ● Knowledge of development biology, how a single cell can develop in a complete organism. ● Knowledge of bio development will be helpful in the higher studies and research work. ● Practical knowledge of instruments, slides of developing embryo will be helpful in their own research.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

B.Sc (MEDICAL) BOTANY

93.	**B.Sc(MEDICAL) (BOTANY) 1ST SEMESTER (DIVERSITY OF MICROBES)**	After the completion of the course, students will be able to: ● Understand the behaviour of bacteria and virus ● Understand the diversity among algae, fungi. ● Know the systematic, morphology and structure of algae, and understand the life-cycle pattern. ● Understand a useful and harmful activities of algae and know the economic importance of algae and fungi. ● Understand the life-cycle pattern of Algae. ● Understand the biodiversity or fungi ● Understand the morphological diversity of bryophytes.
94.	**B.Sc(MEDICAL) (BOTANY) 1ST SEMESTER (ARCHEGONIATE & GYNOSPERM)**	● Understand the morphology diversity of bryophytes. ● Understand the morphological diversity of pteridophytes. ● Understand that economic importance of bryophytes and pteridophytes.
95.	**B.Sc(MEDICAL) (BOTANY) 2nd SEMESTER**	● Understand the concept of ecology. ● Understand the adaptation of plant to water stress and salinity. ● Understand the greenhouse effect in greenhouse gases impact of global warming ● Understand the biochemical cycles ● Know the scope and importance of ecological
96.	**B.Sc(MEDICAL) (BOTANY) 2nd SEMESTER**	● Understand the taxonomy and systematic in relation to chemotaxonomy. ● Salient features of system of classification of angiosperm. ● Understand the diversity of flowering plant. ● Diagnostic feature and economic importance of different plant families.
97.	**B.Sc(MEDICAL) (BOTANY) 3rd SEMESTER**	● Understand the anatomy of tissue meristem and permanent (simple complex and secretatly) ● Understand the anatomy of moncot root and dicot root. ● Understanding, stomatal, apparatus and their morphological types
98.	**B.Sc(MEDICAL) (BOTANY) 3rd SEMESTER**	● Understand the flower as a modified shoot ● Understand the pattern germination ● Understand the different processes related to plant embryology ● Understand the embryogenesis in dicot and moncot. ● Understand the types of pollination by different types of agencies

99.	**B.Sc(MEDICAL) (BOTANY) 4th SEMESTER**	● Understand the plant water relations ● Understand the different pattern of pathway. ● Understand the detailed process of photosynthesis and their function ● Understand the different plant hormone and their functions ● Understand the concept of phytochrome and the role and mechanism of action ● Understand the growth and development of plants.
100.	**B.Sc(MEDICAL) (BOTANY) 4th SEMESTER**	● Understand plant biochemistry ● Understand the concept of plant tissue culture. ● Understand the concept of blonde biotechnology. ● Understand a lipid metabolism process ● Understand the nitrogen metabolism occurring in plant.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

101	**B.Sc(MEDICAL) (BOTANY) 5th SEMESTER**	● Understand the role of plant in human welfare gain knowledge about various plant of economic use ● Know importance of plants and plant product ● Understand the chemical content of plant product ● Know about utility of plant resources ● Understand the concept of plant tissue culture ● Understand the concept of plant biotechnology
102.	**B.Sc(MEDICAL) (BOTANY) 5th SEMESTER**	● Understand the cell, basic structure with its functions ● Understand about cell organelles ● Understand about cell cycle and cell division ● Understand different type of chromosomal aberrations.
103.	**B.Sc(MEDICAL) (BOTANY) 6th SEMESTER**	● Understand the morphological character of DNA as genetic material ● Understand the genetic inheritance pattern ● Understand the genetic variation present in living organism. ● Understand a modern concept of gene, RNA, ribosomes and central dogema of molecular biology.
104.	**B.Sc(MEDICAL) (BOTANY) 6th SEMESTER**	● Understand the IUCN concept and botany nomenclature. ● Understand a different plan study such as medicinal, plant- chinchona and opium ● Understanding different types of conservation. ● Understand the biodiversity awareness program ● Understand the biltivation and economic importance of plant.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

B.Sc (NON-MEDICAL) PHYSICS

105.	**B.Sc (NON-MEDICAL) PHYSICS SEMESTER-1ST**	After the completion of the course: • Students will be able to understand the Newton's law and its applications • Apply the lagrangiom and Hamiltonian dynamics to study motion of particle . • Understand the use of cononical transformation and poisson brackets. • Understand the central forces and non-intertial frame of reference to study motion of different objects • Understand the rigid body dynamics and small oscillations.
106.	**B.Sc (NON-MEDICAL) PHYSICS SEMESTER-1ST**	• Understand the concept of electric force, electric field and electric potential for stationary charges. • Calculate electric potential and Electric feel by using Gauss's law. • Concept of magnetic field, magnetic field for steady currents. • Study the magnetic materials and its properties properties.
107.	**B.Sc (NON-MEDICAL) PHYSICS SEMESTER-2ND**	• Understand the basic concept of mechanics, fluid dynamics and various types of forces.
108.	**B.Sc (NON-MEDICAL) PHYSICS SEMESTER-2ND**	• Understand the importance of electrostatics • Understand the importance of magnetostatics. • Understanding Maxwell equation and their physical significance • Understand the furadays law of inductions, Lenz's law generalisation of ampere's law.
109.	**B.Sc (NON-MEDICAL) PHYSICS SEMESTER-3RD**	• Understand the zeroth law of thermodynamics and temperature. • Understand third law of thermodynamics, unattainability of absolute zero, thermodynamic potential Maxwell's relation and application. • Understand kinetic theory of gases • Law of equipartition of energy and its application to specific heat of gases and theory of radiation
110.	**B.Sc (NON-MEDICAL) PHYSICS SEMESTER-3RD**	• Understand wave optics • Understand fresvel diffraction. • Understand fraunhoffer diffraction • Polarisation double refraction, circular and elliptical polarization optical activity, and optical fibres.
111.	**B.Sc NON-MEDICAL) PHYSICS SEMESTER-4TH**	• Understand semiconductor diodes. • Understand bipolar junction transistor • Understand field effect transistor. • Understand operational amplifier
112.	**B.Sc (NON-MEDICAL) PHYSICS SEMESTER-4TH**	Black body radiation, quantum theory of radiation, photon, photoelectric effect and Einstein photoelectric equation. • Understand basics of quantum mechanism • Understand stationary states. • Understands schrodinger equation in spherical coordinates.

113.	**B.Sc (NON-MEDICAL) PHYSICS SEMESTER-**	• Understand lattice, basis translational vectors, primitive unit cell,symmetry operations and different types of crystal structures. • Understand, x-ray, diffraction, and other characterisation technique • Understand free electron and importance of band theory of metals

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

	5TH	● Understand the magnetic properties of materials
114.	**B.Sc(NON-MEDICAL) PHYSICS SEMESTER-5TH**	● Understand the concept of wave packet, phase velocity and group velocity. ● Understand the Heisenberg uncertainty principle with experiment. ● Understand a physical interpretation of wave function. ● Understand the importance of operators in quantum mechanics
115.	**B.Sc (NON-MEDICAL) PHYSICS SEMESTER-6TH**	● Understand the Rutherford atomic model and vector atom model ● Understand the L.S and J.J compling scheme. ● Understand the application of X-Ray spectroscopy ● Understand the molecular spectroscopy and raman spectroscopic ● Understand the population in version and spontaneous and stimulated emission in Laser.

116.	**B.Sc (NON-MEDICAL) PHYSICS SEMESTER-6TH**	● Understand basic property of nucleus ● Understand the properties of alpha beta gamma rays ● Understand the properties of nuclear forces ● Understand use of gas filled detectors and solid-state detectors.

B.Sc(NON MEDICAL) CHEMISTRY

117.	**B.Sc (NON-MEDICAL) CHEMISTRY SEMESTER-1ST**	After the completion of the course: ● Students will understand the basic constituents of matter, like atoms ions and molecules in terms of their electronic structure and reactivity. ● Draw Lewis structure and explain the bonding with the help of valence bond theory, resonance, and hybridisation ● Able to calculate the percentage iconic character of a covalent bond ● Apprise students with the introduction to organic, compounds, electron displacement types of reagents and reaction intermediates ● Know different types of stereoisomerism like conformational,configuration enantionerism and diastereoisomerism ● Different type of organic reactions, like addition electrophilic, nucleophilic, and free radical substitution reactions
118.	**B.Sc(NON-MEDICAL) CHEMISTRY SEMESTER-1ST**	● Students will learn the kinetic theory of gases, ideal gas and real gases ● Understand the concept of degree of freedom, molecular bases of heat capacity etc. ● Learn the qualitative treatment of the structure of liquid along with the physical properties of liquid viz vapor pressure, surface tension and viscosity. ● Approach about the reactions of alkanes, alkenes with content to the preparation and general reactions ● Understand the baeyer's strain theory and its limitation.
119.	**B.Sc (NON-MEDICAL) CHEMISTRY SEMESTER-2ND**	● Provide familiarity with periodic behaviour of s and p block elements related to their electronic structure and their reactivity is included the principles governing their reactivity. ● Approach regarding aromatic, hydrocarbons, alkyl, and aryl hallides including their preparation and properties
120.	**B.Sc (NON-MEDICAL) CHEMISTRY SEMESTER-2ND**	● Learn about thermodynamic terms -closed, open and isolated system ,surrounding energy heat internal energy. ● Understand about the entropy change during various processes, Gibb's free energy, Maxwell's thermodynamics relations, second law and thermodynamics third law.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		● Know about the methods of prepration, physical properties, reactions, and functional group of primary secondary and tertiary alcohols. ● Understand about the reaction of aliphatic, aromatic, carboxylic acids, aldehyde, and ketones
121.	**B.Sc (NON-MEDICAL) CHEMISTRY SEMESTER-3RD**	● Understand about coordination compound, isomerism in coordination compounds. ● Learn about valence bond theory of transition metal complexes. ● Know about the concept of non-aqueous solvents and their general characteristics
122.	**B.Sc (NON-MEDICAL) CHEMISTRY SEMESTER-3RD**	● Understand the concept of thermodynamics terms - open closed, intensive properties. ● Learn about the concept of heat and work, definition of internal energy ● Calculation of w,q and dH for the expansion of ideal gas under isothermal and adiabatic conditions for reversible process ● Understand of understand the concept of Lee Chatlier's principle and applications of clausius- clapeyron equation
123.	**B.Sc (NON-MEDICAL) CHEMISTRY SEMESTER-3RD**	● Understand the nomenclatural of alcohols, phenol. ● Learn about the concept of spectroscopy including ultraviolet absorption spectroscopy. ● Know about the nomenclature of carbonylic acid and their properties and preparation

124.	**B.Sc (NON-MEDICAL) CHEMISTRY SEMESTER-4TH**	● Understand about the junior features and chemistry of lanthanides and actinides ● Learn about qualitative and quantitative in organic analysis
125.	**B.Sc (NON-MEDICAL) CHEMISTRY SEMESTER-5TH**	● Learn the electronic spectra of transition metal complex orgel diagram for d1 and da states. ● Understand the concept of metal ligand bonding in transition metal complexes and Crystal field splitting in different complexes. ● Approach the thermodynamic and kinetic aspects of metal complex. Understand the magnetic properties of transition metal complex and orbital contribution to magnetic moment.
126.	**B.Sc (NON-MEDICAL) CHEMISTRY SEMESTER-5TH**	● Understand the concept of blackbody radiation, plank's radiation law, photoelectric effect, Compton effect quantum mechanical operator, Hamiltanian operator etc. ● Learn about the optical activity, polarisation, orientation of dipoles in an electric field, dipole moment, measurement of dipole moment temperation method. ● Know about infrared spectrum, energy level SHO, selection rules, determination of force constant, and qualitative relation of force constant ● Concept of polarisability, pure rotational and vibrational Raman spectra of diatomic molecules.
127.	**B.Sc (NON-MEDICAL) CHEMISTRY SEMESTER-5TH**	● Understand principles of nuclear magnetic resonance, the PMR spectra, peak areas, chemical shift, shielding, and deshielding of protons, proton counting, splitting of signals, and coupling instance. ● Discuss PMR spectra of the different molecules. ● Know about carbohydrate-classification, nomenclatural, configuration of different carbohydrates. ● Learn about organometallic, compound like organomagnesium, oregano zinc

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		etc.
128.	**B.Sc (NON-MEDICAL) CHEMISTRY SEMESTER-6TH**	● Understand the nomenclature and classification of organometa compounds. ● Prepration, properties and bonding of alkyls of Li, Al, Sn and a brief account of metal electric complex. ● Learn the concept of lewis concept of acid and base. ● Know about the essential and trace elements in biological process with special reference to haemoglobin and myoglobin. ● Learn silicones and phosphazines their preparation properties, structure, and users

129.	**B.Sc (NON-MEDICAL) CHEMISTRY SEMESTER-6TH**	● Learn about the concept of potential energy curves for bonding and anti-bonding molecules. ● Understand the interaction of radiation with matter, difference between thermal and photochemical process. ● Know about the ideal and non-ideal solution, methods of expressing concentration of solution activity and activity co-efficient. ● Understand statement and meaning of theromphase component, degree of freedom, thermodynamic derivation of gibbs phase rule, phase equilibria of one component system.
130.	**B.Sc (NON-MEDICAL) CHEMISTRY SEMESTER-6TH**	● Understand the molecular orbital picture and aromatic characteristics of molecularly orbital. ● Learn the preparation and Rxn of Indole, orinoline and isoquinoline with special reference to Fisher indol synthesis etc. ● Approach Nomenclature structural features, methods of formation and chemical reaction of thiols, sulphonic acid etc. ● Understand the addition of chain growth polymerisation, Natta polymerization, and vinyl polymers etc. ● Classification of amino acid, acid base behaviour, isoelectric point, and electrophoresis. ● Provision of amino acid structure and nomenclature of peptide and protein

B.Sc (COMPUTER SCIENCE)

131.	**B.Sc (COMPUTER SCIENCE) SEMESTER-1**	After the completion of the course, students will be able to: ● Impact of basic concepts of logics and designs and theorem of boolean algebra. ● Understand the concept of registers, multiplexes and demultiplexes circuits. ● Understand the concept of computer, number system, input, and output devices Student will be able to gain practical experience in MS-Word ● Student will be able to gain practical experience in MS-excel and PowerPoint.
132.	**B.Sc (COMPUTER SCIENCE) SEMESTER-2**	● Understand the concept of systems, types of systems and elements of systems. ● Understand the tools of structured analysis of DFD, data dictionary, Gantt chart and system testing ● Student will acquire knowledge of C-language and learn to implement the algorithms and draw flowchart for solving mathematical and engineering

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		problems. ●Demonstrate an understanding of computer programming language concept and able to develop C language ●Ability of design and develop computer programs, analysis and interprets the concept of pointers, declaration initialization, operation on pointers and their usage. ●Develop confidence and ability for lifelong learning needed for a computer language
133.	**B.Sc (COMPUTER SCIENCE) SEMESTER-3**	●To understand concept about sorting and sorting techniques. ●To impact the data structure and algorithm. ●To understand basic concepts about stacks, queue, and lists. ●To store complex application using structured programming method. ●Implement graph search and transversal algorithm, and determine the time and computation complexity
134.	**B.Sc (COMPUTER SCIENCE) SEMESTER-4**	●Understanding basic operating system fundamentals ●To know how an operating system can be used as a service. ●Learn Linux programming concept ●Have a foundation store to understand operating system working. ●To understand concept about thread model scheduling and file system concept. ●To understand concepts of memory management
135.	**B.Sc (COMPUTER SCIENCE) SEMESTER-5**	●To identify the basic concept of database management system its component,functions merits and demerits. ●To acquire the knowledge of three level architectures ●Ability to understand normalisation first normal form to BCNF ●To acquire the knowledge of Internet tools, searching and types of searching ●Students learn to write, test and debug webpages using HTML. ●To acquire the knowledge of Internet and external and internal linkings. ●Student will be able to write expression for pattern matching and apply them for various filters for a specific task
136.	**B.Sc(COMPUTER SCIENCE) SEMESTER-6**	●To import the basic concepts of visual basic and programming. ●Do you understand basic concepts about DAO, ADO are simple active X control ●Software will be able to broaden knowledge of software product. ●Student will be able to gain experience in various models like waterfall, prototype etc. ●They will be able to increase proficiency in software project management and gain practical experience in requirements engineering ●They will acquire the background of software architecture and understand and able to explain software metrics and software reliability.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

BACHELOR OF COMPUTER APPLICATION

137.	**BCA SEMESTER-1 COMPUTER AND PROGRMMING FUNDAMENTAL**	After the completion of the course: ● Students will be able to learn generations of computers, applications of computers in various fields. ● Student will be able to learn computers in different categories based on their capabilities, identify computers hardware and peripheral devices ● Summarise view of operating system and introduction of computer virus ● Student will be able to learn about converters: compliers, interpreters and assemblers. ● Student will be made familiar with the application software, learn about Linker-loader, structured programming concept, an introduction to computers.
138.	**BCA SEMESTER-1 PC SOFTWARE**	● MS-Windows, basics of windows, components, icons files and folders, control panel, display properties, hardware, screensaver and appearance using windows. ● An overview on MS Word, MS Excel and MS PowerPoint presentation
139.	**BCA SEMESTER-1 MATHEMATICS**	● Reason mathematically about basis discrete structures such as numbers, sets used in computer science. ● Formulate limit, continuity, and differentiability. ● Familiar with determinants and matrices. ● Demonstrate a working knowledge and definite and indefinite integrals. ● Learn about sampling methods
140.	**BCA SEMESTER-1 LOGICAL ORGANISATION OF COMPUTER-1**	● Student will be able to understand the structure, function and characteristics of computer system, design of various functional units and components of computers. ● Expose students to the basic architecture of processing memory, and I/o organisation in a computer system. ● Student will be able to apply the knowledge of combinational logical circuits to design computer architecture ● Student will be able to understand the design and analysis the procedure using computer system ● Student will understand about the digital code, logic gates and circuits
141.	**BCA SEMESTER-2 C - PROGRAMMING**	● Ability to design and develop computer programs, analyse and interpret the concept of pointers, declaration and their usage. ● Students will acquire knowledge of C language and learn to implement the alogarithms and draw flowcharts. ● To Be able to develop C programs based on windows ● Develop confidence and ability for lifelong learning needed for computer language
142.	**BCA SEMESTER-2 LOGICAL ORGANISATION OF COMPUTER-2**	● Realise the sequential logic circuit by using various logical blocks ● Design synchronous counters and develop sequential circuit application using flip-flop and registers. ● Understand the fundamentals of different instruction sets, architecture and their relationship to the CPU design. ● Understand the principal and implementation of computer arithmetic.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		● Learn about primary and secondary storage system
143.	**BCA SEMESTER-2 MATHEMATICAL FOUNDATION OF COMPUTER**	● Know more about graphs and alogarithms ● Learn the ability to sort the things in easy ways ● Knowledge about searching through different such a alogarithms ● Develop and maintain problem-solving skills ● Have experience using technology to address mathematical ideas
144.	**BCA SEMESTER-2 SYSTEM ANALYSIS AND DESIGN●**	● Employ productivity software to solve technical problems. ● Apply basic technical concept to identify, analyse and solve technical problems involving structural, geotechnical, and material behaviour ● Perform economic analysis and cost estimates related to design, construction, operations, and maintenance of system in the civil technical specialities. ● Work effectively as teams, communicate effectively, and engage in lifelong learning. ● Will be committed to quality, timeliness, and continuous improvement.
145.	**BCA SEMESTER-3 INTRODUCTION TO COMPUTER SYSTEM**	● Gain extensive knowledge on principles and modules of operating systems. ● To acquire the knowledge of process management, process synchronisation and the mechanisms to handle the deadlock. ● Ability to understand paging concept,memory management and virtual memory in detail. ● Compare performance of processor scheduling algorithms- produce algorithms solution to process synchronisation problems ● To study about protection and security mechanisms
146.	**BCA SEMESTER-3 DATA STRUCTURE**	● Student will be able to learn about data types and how data can be stored in memory. ● Will be able to learn and implement 1D-Arrays, multidimensional Arrays, and linked list. ● To solve complex application using structured programming methods. ● Learn and implement various operation on stack and queue, dequeue and learn about application of stack. ● To develop skills to apply appropriate data structures in problem-solving
147.	**BCA SEMESTER -3 INTRODUCTION TO DATEBASE MANAGEMENT SYSTEM**	● Will be able to understand the importance of data base in architecture and modelling of data base. ● Explain the basic concept of relational data model, entity-relationship model and relational data base design, relational algebra, and SQL ● Learn brief introduction to structured query language, backup and recovery of data bases ● Design, ER models to represent present simple database application scenarios. ● Will be able to design commercial data base application and formulate SQL Queries on data
149.	**BCA SEMESTER- 3 COMMUNICATION SKILLS**	● Demonstrate critical and innovative thinking ● Display competence in oral, ● written and visual communication ● Apply communication theories and show an understanding of opportunities in the field of communication ● More effective, written communication ● Distinguish between different communication process and its practical

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		application
150.	**BCA SEMESTER-4 WEB DESIGNING**	● Students learn HTML tags and JavaScript language programming concepts and techniques. ● Student will be able to develop the ability to logically plan and develop webpages ● Student will be able to learn to write, test and debug web pages using HTML in JavaScript ● Students will be able to develop a fully functioning website and deploy on the web server
151.	**BCA SEMESTER-4 DATA STRUCTURE**	● Learn about trees and will be able to implement all the operation is on tree. ● Will be able to understand and implement shortest path algorithms. ● Describe the hash function and concepts of collision, and its resolution methods and solve problems involving graphs, trees, and heaps. ● Apply algorithms for solving problems like sorting, searching, insertion and deletion of data.
152.	**BCA SEMESTER-4 OBJECT ORIENTED PROGRMMING USING C++**	● Describe the procedural and object-oriented paradigm with concept of streams, classes, functions, data and objects. ● Understand, dynamic memory management technique, using pointers constructors, destructors etc. ● To describe and use software tools in programming process. ● Students will be able to identify importance of object-oriented programs and difference between structured oriented and object-oriented programming features. ● Apply virtual and pure virtual functions and complex programming situations
153.	**BCA SEMESTER-4 SOFTWARE ENGINEERING**	● Student will learn how to apply the software engineering, life cycle by demonstrating competence in communication, planning, analysis, design, construction, and deployment. ● Students will be able to understand the process of software development and plan the software development ● Will understand and implement the coding, debug a software, and test a software ● They will have the ability to use the techniques and tools necessary for engineering practice
154	**BCA SEMESTER-5 MANAGEMENT INFORMATION SYSTEM**	● Will be able to analyse a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions. ● Design, implement and evaluate a computing-based solution to meet a given set of computing requirements in the context of the programs discipline ● Function effectively as a member or leader of a team engaged in activity appropriate to the programs discipline. ● Support the delivery,use and management of information system within an information system environment ● Communicate effectively in a variety of professional context
155	**BCA SEMESTER-5 COMPUTER GRAPHICS**	● Understand the basics of computer graphics, different graphics, system, and application of computer graphics. ● Use of geometric transformation of graphics objects and their application in composite form. ● Extract scene with the different clipping methods and its

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		transformation to graphics display device ● Render projected object to naturalise the scene in 2-D view and use of illumination models for this
156	**BCA SEMESTER-5 DATA COMMUNICATION AND NETWORKING**	● Understand the concept of how computer communicate and be familiar with the architecture of network ● Understanding and explaining data communication system, and its components and different type of network topologies and protocols ● Will be able to understand the concept of networking based on OSI and TCP/IP models ● Understand Network security and define various protocol, such as FTP, HTTP, telnet, and DNS. ● State the fundamental related to network security and explain various protocols related to Internet key. ● Define various examples of wireless communication system standards related to 2Gand 3G wireless networks and device design wireless mobile networks according to parameters
157	**BCA SEMESTER-5 VISUAL BASICS**	● Will be able to understand and overview of computers and computer programs. ● Understand the concept of data driven program execution flow control in Visual Basic programming ● Student will be able to explain the concept of windows programming write pseudo code window program ● Student Develop program using visual basic, develop program using the VC++ and develop real-time application, using VB AND VC++ ● Students code visual programs by using visual basic work environment and prepare various projects by using visual programming
158	**BCA SEMESTER-6 E-COMMERCE**	● Will be able to explain technology supporting e-commerce including Web servers and electronic payment system ● Will be able to explain enables and issue in business to consumer e-commerce ● Will be able to describe scenarios for B2B e-commerce, including SCM, C and EDI. ● Explain policy and regulatory issues in e-commerce
159	**BCA SEMESTER-6 OBJECT TECHNOLOGIES AND PROGRAMMING USING JAVA**	● Will be able to use the syntax and semantics of Java programming language and basic concept of OOP. ● Develop reusable programs using concept of inheritance, polymorphism, interfaces, and packages ● Apply the concept of multithreading and exception handling to develop efficient and error free codes. ● Design event driven GUI and web related application which mimic the real words scenarios. ● They will also learn to designed Applet programming and small job application projects
160	**BCA SEMESTER-6 ARTIFICIAL INTELLIGENCE**	● The main research topics in A.I include problem-solving, reasoning and planning ● Design and evaluate conservational interfaces for different users and context use. ● Design and interface to improve humans in real time and decision-making. ● Analyse the implications of applying AI system to organisations and future of work

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		● Natural language understanding computer vision automatic programming, machine learning and so on
161	**BCA SEMESTER-6 INTRODUCTION TO .NET**	● Will be able to understand the Microsoft,NET framework and ASP. ● Design web application with variety of controls and access the data using inbuilt data access control. ● Will be able to understand inheritance and polymorphism concepts ● Will be able to develop secured web application

B.COM (GENERAL, ASM AND CA)

162	**B.COM SEMESTER-1 FINANCIAL ACCOUNTING**	After the completion of the course, students will be able to: ● To develop the knowledge about the various aspects of financial accounting. ● To introduce and develop the knowledge of the capital and revenue items and about the various aspects of depreciation. ● To make them understand about the financial accounts of Non-Profit organisations and rectifying the errors.
163	**B.COM SEMESTER-1 BUSINESS ECONOMICS**	● Understand how households (demand) and businesses (supply) interact in various market structures to determine price and quantity of a good produced. ● Understand the links between household behavior and the economic models of demand. ● Represent demand, in graphical form, including the downward slope of the demand curve and what shifts the demand curve
164	**B.COM SEMESTER-1 BUSINEES MANAGEMENT**	● Understand the evolution of management and apprehend its effect on future managers. ● Analyze the relationship amongst functions of management i.e planning, organization, staffing, directing, and controlling. ● Appreciate the changing dynamics of management practice. ● Comprehend the changes happening in organization.
165	**B.COM SEMESTER-1 FUNDAMENTAL OF COMPUTERS**	● Recognize when to use each of the Microsoft Office programs to create professional business documents. ● Use Microsoft Office programs to create personal and/or business documents following current professional and/or industry standards. ● Pursue future courses specializing in one or more of the programs. ● Apply skills and concepts for basic use of computer hardware, software, networks, and the Internet in the workplace and in future coursework as identified by the internationally accepted Internet and Computing Core (IC3) standards
166	**B.COM SEMESTER-1 OPERATING SYSTEM**	● Understanding the OS system function and MS-DOS commands. ● Understanding OS system how to manage process management ● Understanding the storage management of OS ● Understanding device management, file management deadlocks in OS ● Understanding the UNIX basic and UNIX command
167	**B.COM SEMESTER-2 FINANCIAL ACCOUNTING-2**	● To develop the knowledge about Hire Purchase System and Instalment Payment System. ● To equip the students with proper knowledge of Branch and Departmental accounts. ● To make them understand about dissolution of partnership firms. To introduce and development the knowledge of Joint Venture Accounts

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		and Royalty Accounts.
168	**B.COM SEMESTER-2 BUSINESS COMMUNICATION SKILLS**	●To develop the knowledge about the basics of communication and barriers involved in it. ●To create an awareness about letter writing and business reports. ●To equip the students with proper knowledge about the Speaking, Reading and Listening Skills
169	**B.COM SEMESTER-2 BUSINESS MATHEMATICS**	● Explain the different set types and operations and application of sets in solving practical problems. ● Solve practical problems based on permutations and combinations. ● Find the general term and sum of any number of terms of arithmetic and geometric progressions. ● Collect, classify, organise, and graphically represent the data. ● Find inverse of and determinant of square matrix. ● Solution of a system of linear equations using matrices. ● Solve practical problems based on derivatives, compound Interest, annuities, ratio proportion percentage, profit, and loss.
170	**B.COM SEMESTER-2 INDIAN ECONOMY AND BUSINESS ENVIRONMENT**	●Introduction to business environment and dimensions of business environment ●To introduce students about balance of trade and balance of payment ●Problem of growth-related unemployment and industrial sickness ●Learn about monetary policy fiscal policy, liberalisation and privatisation Know about WTO, IMF, and World Bank
171	**B.COM SEMESTER-2 DBMS**	●Introduction of DBMS, concepts, and definition ●To understand the SDLC, normalisation and normal form of functional dependency and decomposition techniques. ●Introduction to schemes, sub schemes and intances and structure of relational database ●To understand the processing and optimisation ●Introduction of concurrency control and data manipulation
172	**B.COM SEMESTER-2 CORPORATE ACCOUNTING**	●Learn about the journal entries of issue of shares and issue of debentures. ●Know about the final accounts of the companies. ●Learn about the valuation method of shares and goodwill and measurement of performance of companies. ● Work with profit prior to incorporation and post incorporation profits in company's accounts
173	**B.COM SEMESTER-3 BUSINESS REGULATORY FRMAWORK**	● Understand basic concepts of contracts for making the agreements, contacts. ● Be able to recognize and differentiate the special contracts. ● Understand the procedure to file case in situation of any consumer dispute. ●Have knowledge about the legitimate rights and obligations under The Sale of Goods Act. ● Comprehend the various aspects of RTI Act. ● Understand the concept of partnership and its law. ● Know various types of negotiable instruments.
174	**B.COM SEMESTER-3 HUMAN RESOURCE**	●Learn the qualities of human resource manager in an organization. ●Analysis the importance of different methods of training ●Learn the participant of industrial relation and recruitment of good industrial relation programme.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

	MANAGEMENT	
175	**B.COM SEMESTER-3 E-COMMERCE**	●To understand about the fundamentals and importance of e-commerce ●To familiarise with the hardware and software relating to E-commerce ●To understand about the networking, network topologies domain name, Internet, Intranet and extranet. ●Do you understand about the online payment mechanics, digital signature, data encryption and decryption cryptography, public key, private key, and E check certification ●To familiarise with the threats in e-commerce security of client and service provider, service issues, cyber law, IT ACT-2000, and e-governance.
176	**B.COM SEMESTER-3 RETAIL MANAGEMENT**	●To introduce the students with the meaning of retail its function, scope, importance and retail life cycle, and IT induction in retail. ●To develop the concept of types of formats of retailing. ●To develop the concept of management of retaining and function of retail management ●To understand the concept of retail management strategy process. ●To develop the concept of retail planning and process and types of retailing strategies
177	**B.COM SEMESTER-3 NETWORKING AND INTERNET**	●Develop concept of networks and networking including data communication ●Develop concept of error detection and error correction in data communication. ●Students get the knowledge about web applications, along with clients' server environment. ●Students get their knowledge about search engines and searching criteria ●Students get their knowledge about different networking devices
178	**B.COM SEMESTER-4 CORPORATE ACCOUNTING-2**	●Know about the companies all accounts. ●Get the Knowledge of banking system. ●Learn about working format of companies. ●Understand Mutual funds' investments. ●Find out how a company can dissolve
179	**B.COM SEMESTER-4 BUSINESS STATISTICS**	●Understand and critically discuss the issues surrounding sampling and its significance and produce appropriate graphical and numerical descriptive statistics for different types of data. ●Conduct and interpret a variety of hypothesis tests to aid in decision making in business context. ●Find the simple regression model and be able to interpret the slope and y-intercept And explain the degree and type of relationship existing between two variables. ●Discuss and describe the key terminologies, concepts, tools, and techniques used in business statistical analysis and critically evaluate the underlying assumptions of statistical analysis tools. ●Apply basic probability concepts and probability distributions as an aid in business decision making.
180	**B.COM SEMESTER-4 COPORATE LAW**	●To develop the knowledge about Depository System and Types of Shares. ●To equip the students with proper knowledge of share capital and shareholders and members.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		●To make them understand about the meetings of Company and Directors. ●To introduce and develop the knowledge of winding up of company.
181	**B.COM SEMESTER-4 MARKETING MANAGEMENT**	●Students can identify how consumer behaves differently. ●Able to understand how a product passes from different stages. Able to understand the difference between trademark and branding. Able to describe the customer segmentation, target marketing and positioning. ● Understand different methods of sale promotion.
182	**B.COM SEMESTER-4 BANKING AND BANKING LAW**	●To understand the concept of banking system, its functions, and problems of non-performing assets ●Aim to create awareness about the role and importance of commercial banks ●Give knowledge to students about power and functions of RBI Understanding the concept of negotiable instrument ●Give knowledge to students about the relationship between Banker and a customer
183	**B.COM SEMESTER-4 SERVICE MARKETING**	●Understanding the concept of service marketing and characteristics of service marketing. ●Give knowledge about service, marketing mix and Gap model ●To develop the concept of the role of customer in service marketing ●Apply the principles of e-commerce, e-marketing, and telemarketing services ●To develop the concept of integrated service marketing, service design and service delivery to clear the students about pricing strategy
184	**B.COM SEMESTER-4 AGRICULTURE AND RURAL MARKETING**	●The main outcome of the subjects is to familiarise the concept of agriculture and rural marketing. ●Defined the concept of role of rural agriculture in economic development in India ●Give knowledge to the students about opportunities and challenges to Rural marketing in India ●Define the environmental effect in Rural marketing Student gain knowledge about innovation in rural marketing.
185	**B.COM SEMESTER-4 SYSTEM ANALYSIS AND DESIGN**	●A sound background in the analysis, design, testing and construction of civil structures ●Perform standard analysis and design of structural system following codes and modern practices ●Plan and prepare design and construction documents such as specifications, contract, change orders, engineering drawings, and construction schedules. ●Understand professional, ethical, and social responsibilities. ●Will be committed to quality, timeliness, and continuous improvement
186	**B.COM SEMESTER-4 STRUCTURAL PROGRAMMING USING C**	●Students learn about structural programming methodologies ●Students get the knowledge about flowcharts ●Students learn about programming in C language ●Students learn about memory allocation in the system
187	**B.COM SEMESTER-4 BUSINESS ETHICS**	●To give knowledge to student about ethics and business ethics ●To develop the concept of ethical issue in business and how to prevent it ●Understand the concept of implementation process of business ethics

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		●To develop the concept of business sustainability, ethical and social responsibility dimensions ●To get knowledge about techniques of moral reasoning and argumentation
188	**B.COM SEMESTER-5 COST ACCOUNTING**	●Define the various components of total cost of a product i.e., direct &indirect cost and fixed & flexible cost. ●Determine various levels of material i.e., reorder level, minimum level, maximum level & EOQ for managing working capital. ●Use methods of timekeeping & time-booking and manage idle &overtime. ●Define the features of overhead or indirect cost of production and basis of allocation and apportionment. ●Use the cost-sheet to compute unit cost of product.
189	**B.COM SEMESTER-5 TAXATION LAW**	● Understand the basic concepts in the law of income tax. ● Determine the residential status of different persons. ● Identify the five heads in which income is categorized. ● Understand clubbing provisions, set off and carry forward of losses.
190	**B.COM SEMESTER-5 MANAGEMENT ACCOUNTING**	● Develop an understanding of cash flow statements. ● Understand various methods of capital budgeting. ● Analyse the financial statements of various companies and can compare them. ● Understand thoroughly the conceptual framework of management accounting.
191	**B.COM SEMESTER-5 AUDITING**	●Student will understand the audit process from the engagement planning stage through completion of the audit, as well as the rendering of an audit opinion via the various report options. ●Student will understand auditors‟ legal liabilities and be able to apply case law in making a judgment whether auditors might be liable to certain parties. ●Student will understand to describe the various levels of persuasiveness of different types of audit evidence and explain the broad principles of audit sampling techniques. ●Student will understand to discuss the need for an independent or external audit and briefly describe the development of the role of the assurance provider in modern business society. ●Student will ably describe the quality control procedures necessary to ensure that a competent assurance engagement is performed, and apply professional ethics including Code of Conduct to specific scenarios
192	**B.COM SEMESTER-5 ADVERTISING AND SALES MANAGEMENT**	●Introduce about advertising. ●To develop different skills in the students, with an example of types of advertising ●Learn about ethics and code of conduct in advertising ●Learn how to prepare advertising message ●Get to know about direct mail, print media and classification of display advertising
193	**B.COM SEMESTER-5 RETAIL**	●To introduce the students with the meaning of retail its function, scope, importance and retail life cycle, and IT induction in retail. ●To develop the concept of types of formats of retailing.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

	MANAGEMENT	●To develop the concept of management of retaining and function of retail management ●To understand the concept of retail management strategy process. ●To develop the concept of retail planning and process and types of retailing strategies
194	**B.COM SEMESTER-5 DIGITAL MARKETING**	●To understand about digital marketing evolution, concept, scope, environment analysis, digital data analysis, and career in digital marketing ●To familiarise with a digital consumer behaviour information search behaviour, pre-and post behaviour and management ●Develop the concept of digital market positioning, digital marketing strategy and digital marketing mix decision ●To understand about the digital marketing mechanism.
195	**B.COM SEMESTER-5 BRAND MANAGEMENT**	●To familiarise with the branding concept, challenges and opportunities, brand equity, brand values and brand positioning ●To understand about the nature of brand development, brand awareness, brand attitude, brand identity, brand personality and co-branding. ●Developed the concept of brand equity management, quantitative and qualitative research, and market performance ●To understand about branding strategies, brand hierarchy, brand extension and brand switching
196	**B.COM SEMESTER-5 MULTIMEDIA AND COMPUTER GRAPHICS**	●Learn theory of technology, procedures and skill in computer graphics and multimedia ●Improvement of both image synthesis in computer graphics for speech processing and recognition, sound and video sequences algorithms for multimedia and development of system for human computer interaction ●Student to focus according to their preferences on theoretical basis of the selected specialisation on other fields of computer science and computer graphics ●Provide help in software development ●For industrial application in multimedia companies, radio and television studies, in scientific stimulation, computer games development etc
197	**B.COM SEMESTER-5 OBJECT ORIENTED PROGRAMMING USING C++**	●Student learns the difference between procedural and object-oriented programming ●Student learns about the basic construct of subject oriented programming ●Students get the knowledge of programming techniques and skills in C++ ●Student gets the knowledge of working with objects including re-use of code instead of writing it again and again
198	**B.COM SEMESTER-6 COST ACCOUNTING-2**	●Define the process to compute total cost of a product belong to various production processes. ●Accumulate total cost of a contract assigned. ●Able to prepare various budgets like fixed and flexible budgets. ●Define the terms about variance analysis. ●Define the terms regarding BEP analysis
199	**B.COM SEMESTER-**	● Develop the ability to file online returns of Income.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

	6 **TAXATION LAW-2**	● Compute tax Liability of Individual, Firm, HUF. ● Understand the concept of advance payment of tax and tax deduction at source. ● Know about various types of tax returns and their filling.
200	**B.COM SEMESTER-6** **FINANCIAL MANAGEMENT**	● Understand the relevance of Financial Planning. ● Explain the nature and scope of financial management as well as time value of money. ● Estimate various capital structure theories and factors affecting capital structure decisions in a firm. ● Evaluate working capital requirement. ● Critically examine various theories of dividend policy and factors affecting dividend policy.
201	**B.COM SEMESTER-6** **GOODS AND SALES TAX**	● To Introduce about the salient features of GST ● To help the students of understand about the issues related to Place of Supply & Input Tax Credit. ● To equip the students with proper knowledge about Registration, Payment of Taxes and Audit in GST. ● To make them understand about custom duty and various aspects involved in it.
202	**B.COM SEMESTER-6** **ENTRPRENEURSHIP AND SMALL-SCALE INDUSTRIES**	●To create awareness about entrepreneur and various issues related to it. ● To equip the students with proper knowledge about entrepreneurial opportunities in business environment and setting up a business. ● To develop the knowledge about the managerial roles and functions of business. ● To introduce and develop the knowledge about the issues of small-scale business marketing
203	**B.COM SEMESTER-6** **FINANCIAL MARKET OPERATION**	●Student will be able to understand the Indian banking system and describe the role of regulatory bodies in regulating how banks manage their capital. ●Student will be able to describe the types of equity securities that companies can use to raise equity capital and how these securities can be listed and traded on the Stock Exchange. ●Student will be able to apply different company valuation techniques to determine share prices. ●Student will be able to describe the characteristics of different types of debt securities and be able to price them. ●Student will be able to describe different theories of how interest rates are determined and explain the relationship between the term to maturity, risk, and interest rates.
204	**B.COM SEMESTER-6** **SALES FORCE MANAGEMENT**	●Understanding in detail the role of selling in marketing ●Analysing and understanding the process of planning and establishing marketing plans ●To understand the consumer and establishing and organisational buyer behaviour ●Understand the process of factor affecting consumer decision and

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		factor affecting organisational buyer behaviour ● Develop concept of sales techniques and uses of IT application in sales force management.
205	**B.COM SEMESTER-6 EMERGING TECHNOLOGIES**	● Students learn about A.I ● Students learn about data science ● Students get the knowledge about data value chain ● Student gets the knowledge about big data concept ● Student learns about Internet of things

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

पाठ्यक्रम विवरणः बी०ए०– प्रथम वर्ष, प्रथम अयन हिंदी विभाग

1. छात्राओं को हिंदी साहित्य के इतिहास के कालखंडों के नामकरण एवं पृष्ठभूमि से अवगत करवाना।

2. विद्यार्थियों को भक्तिकालीन साहित्य की काव्यधाराओं से अवगत करवाना।

3. विद्यार्थियों को हिंदी साहित्य के रीतिका की विभिन्न काव्यांशयों के माध्यम से नीतिकाल से अवगत करवाना।

4. हिंदी साहित्य के आधुनिक कालीन गद्य विधाओं का बोध करवाना।

5. हिंदी उपन्यास, कहानी, नाटक, निबंध आदि के विकास को समझना।

6. सृजनात्मक लेखन कौशल को विकसित करना।

द्वितीय अयन

1. भक्तिकालीन कवि कबीर के जीवन परिचय एवं काव्यगत विशेषताओं का अवबोध करवाना।

2. विद्यार्थियों को हिंदी साहित्य के 'स्वर्णयुग' में परिचित करवाना।

3. भक्त कवि तुलसीदास के साहित्यिक परिचय को स्पष्ट करते हुए उनकी कृत्तियों से परिचित करवाना।

4. कृष्णकाव्यधारा के कवि सूरदास, मीराबाई तथा रसखान आदि कवियों की कृत्तियों से परिचित करवाना।

5. रीतिकाल के प्रसिद्ध कवि बिहारी एवं घनानंद के साहित्यिक परिचय को स्पष्ट करना।

6. कवि बिहारी और घनानंद की कृतियों से परिचित करवाना।

द्वितीय वर्ष, तृतीय अयन

1. आधुनिक हिंदी कविता के अर्थ एवं स्वरूप को समझना।
2. आधुनिक कवियों के काव्य तथा साहित्यिक परिचय से अवगत करवाना।
3. हिंदी साहित्य के रीतिकाल की राजनीतिक, सामाजिक, धार्मिक, साहित्यिक तथा आर्थिक परिस्थितियों को अवगत करवाना।

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

4. प्रयोजनमूलक हिंदी के अंतर्गत कम्प्यूटर के महत्त्व को स्पष्ट करते हुए विद्यार्थियों को अवगत करवाना।
5. ई–मेल एवं इंटरनेट की उपयोगिता से विद्यार्थियों को परिचित करवाना।
6. अनुवाद एवं मशीनी अनुवाद के स्वरूप को स्पष्ट करते हुए उसकी उपयोगिता से अवगत करवाना।

चतुर्थ अयन

1. विद्यार्थियों को कहानी के विकास क्रम से अवगत करवाना।
2. प्रेमचंद युगीन एवं प्रेमचंदोत्तर युग की कहानियों की सामाजिक व सांस्कृतिक पृष्ठभूमि को समझना।
3. हिंदी साहित्य के आधुनिक काल की गद्य विधाओं से अवगत करवाना।
4. हिंदी उपन्यास, निबंध, कहानी, नाटक आदि के विकास का अवबोध करवाना।
5. परिभाषिक शब्दावली के स्वरूप से विद्यार्थियों को परिचित करवाना।
6. परिभाषिक शब्दावली के निर्माण में सक्रिय विविध सम्प्रदायों को समझना।

बी०एस०सी० तृतीय अयन

1. आठ अर्वाचीन कवि' के माध्यम से काव्य के आधुनिक स्वरूप् को समझना।
2. सरकारी पत्र लिखने के नियमों को समझना।
3. अर्द्ध–सरकारी पत्र के स्वरूप् एवं नियमों का बोध करवाना।
4. तार–लेखन की विधा से परिचित करवाना।
5. निबंध लेखन की विधा को समझना।
6. वैज्ञानिक शब्दावली का हिंदी रूपांतर समझना।

चतुर्थ अयन

1. 'संस्मरण' के माध्यम से व्यक्ति विशेष के जीवन से संबंधित महत्त्वपूर्ण घटना को उद्घाटित करते हुए लेखन के उद्देश्य का अवबोध करवाना।
2. 'निबंध' लेखन की विधा का बोध करवाना।
3. पत्र लिखने के नियमों का ज्ञान करवाना।

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

4. तार लेखन की विधा को समझना।
5. वैज्ञानिक शब्दावली को समझना।

बी०ए० तृतीय वर्ष, पंचम अयन

1. समकालीन हिंदी कविता के अर्थ एवं स्वरूप को समझना।
2. समकालीन कवियों के साहित्यिक परिचय का अवबोध करवाना।
3. 'हिंदी साहित्य का इतिहास' आधुनिक काल के विभिन्न कालखंड़ों को क्रमानुसार समझना।
4. प्रयोजनमूलक हिंदी के माध्यम से पत्र–लेखन के कौशल को विकसित करना।
5. प्रयोजनमूलक हिंदी के अंतर्गत संक्षेपण विधा के अर्थ स्वरूप एवं महत्त्व से विद्यार्थियों को अवगत करवाना।
6. प्रयोजनमूलक हिंदी के अंतर्गत पल्लवन विधा को समझना।

षष्ठ्य अयन

1. हिंदी की नव्यतर गद्य विधाओं निबंध, संस्मरण और मात्रा वृत्तांत आदि से छात्रों को परिचित करवाना।
2. हरियाणवी भाषा के उद्‌भव एवं विकास को समझना।
3. हरियाणवी बालियों की उत्पत्ति एवं विकास को समझकर विद्यार्थियों को परिचित करवाना।
4. हरियाणवी सांग परम्परा के माध्यम से हरियाणवी संस्कृति को विकसित करना।
5. हरियाणवी भाषा की गद्य एवं पद्य विधाओं के माध्यम से विद्यार्थियों में नैतिक मूल्यों एवं संस्कृति को हस्तांतरित करना।
6. पत्रकारिता के स्वरूप एवं प्रकार को स्पष्ट करना।
7. पत्रकारिता में शीर्षक की संरचना, संपादक के गुण और दायित्व के साथ–साथ फीचन लेखन का बोध करवाना।
8. स्वतंत्र प्रैस की अवधारणा के माध्यम से समाज में जागरूकता लाना।

एम०एस०सी०, प्रथम अयन

1. संचार की अवधारणा को समझकर एक सफल भाषण–कला व लेखन–कौशल को विकसित करना।
2. हिंदी भाषा का विकास एवं हिंदी की बोलियों को समझना।
3. देवनागरी लिपि की विशेषताओं से अवगत करवाना।
4. हिंदी की संवैधानिक स्थिति तथा राजभाषा अधिनियमों से अवगत करवाना।
5. हिंदी भाषा के प्रचार–प्रसार को बढ़ावा देना।
6. पत्र लिखने के नियमों को समझकर सरकारी एवं अर्द्ध सरकारी पत्र के स्वरूप को समझना।
7. अनुवाद की परिभाषा एवं स्वरूप को स्पष्ट करते हुए अनुवाद के व्यावहारिक स्वरूप को समझना।
8. सृजनात्मक लेखन कला को विकसित करना।

बी०कॉम, तृतीय अयन

1. विद्यार्थियों को पत्र लेखन के नियमों से अवगत करवाना।
2. सरकारी एवं अर्द्धसरकारी पत्र के स्वरूप को समझना।
3. हिंदी व्याकरण का ज्ञान करवाना और वर्तनी की शुद्धता का ज्ञान करवाना।
4. देवनागरी लिपि की विशेषताओं से अवगत करवाना।
5. कम्प्यूटर के स्वरूप एवं महत्त्व को समझना।
6. परिभाषिक शब्दावली के स्वरूप से अवगत करवाना।
7. परिभाषिक शब्दावली के महत्त्व को समझना।
8. अनुवाद के अर्थ एवं स्वरूप को समझना।
9. अनुवाद की प्रक्रिया, विशेषता एवं उपयोगिता से विद्यार्थियों को परिचित करवाना।

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

M.A. (ENGLISH)

	M.A. ENGLISH SEMESTER-1 APPRECIATION OF LITERATURE	● This course aims to provide the students basic understanding of approaching literary piece critically and engage with different genres of literature. ● Different genres generally prescribed test particularly help students to learn how to analyse other literary text also. ● Students learn different approaches to read novels or poetry.
	M.A. ENGLISH SEMESTER-1 ENGLISH POETRY	● This course helps students to know about socio-political and literary history of 14th and 16th century. ● The course gives a student vision of life in that time through the eyes of different poets like Chaucer and Shakespeare ● The people help students to recognise the rhythms, metrics, poetic devices, and other musical aspects of poetry
	M.A. ENGLISH SEMESTER-1 ENGLISH DRAMA	● This paper aims to introduce student to different dramatic techniques through the writings of eminent dramatists like William Shakespeare ● Students through the writing of different dramatists learn to analyse themes, characters, and through lives of fictional character learn value of life
	M.A. ENGLISH SEMESTER-1 MODERN ESSAYS	● This paper aims to introducing students with the non-fictional area of literature ● This course aims at encouraging students to think deeply about various areas of life through wider approach by reading emisent thinkers.
	M.A. ENGLISH SEMESTER-1 MODERN INDIAN WRITING IN ENGLISH-1	● Provides opportunities to English post graduate with particular interest in English language to acquire deeper insight into English language and literature. ● It will enhance and reinforce creativity, understanding, teaching, and critical appreciation of English literature ● It integrates knowledge of the diversity of cultures and people. ● It enables the students to apply their critical thinking and ability to appreciate various characters in their times.
	M.A. ENGLISH SEMESTER-2 ENGLISH FICTION	● This course introduces students to the social political and literary terms of the English fiction of 18th-century. ● The acquit students to the themes of progress, self-reliance, civilisation and most importantly to the religious belief of the reference to the prescribed texts. ● To make student understand the theme of morality, the power of goodness, religion, and abuse of power and inhumanity of individuals and society in the 18th century of Europe ● To help students to see the British world of class conflict, love, interdependence on fortune and voice of integrity to hold a better group at the English literature history
	M.A. ENGLISH SEMESTER-2 MODERN INDIAN WRITING IN ENGLISH-2	● It acquaints the student with the social political, economical and religious scenario of the genre. ● To instill values and human concern in students to exposure to literary texts. ● It enhace students literacy and linguistic confidence Introduce them with the origin and history of the Indian writing in English

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		and appreciate the literary devices used in Indian poetry
	M.A. ENGLISH SEMESTER-2 ENGLISH POETRY-2	● The course at introducing student to major works of English poetry in Enlighten age and romantic age. ● This people aims to enable students to critically interrogate canonical text of poetry
	M.A. ENGLISH SEMESTER-2 ENGLISH FICTION-2	● To familiarise students with the genre of novel and its type viz. allegorical, Gothic, Picaresque, Epistolary etc. The course aims to enable students to gain knowledge of development of English fiction starting from 17 century
	M.A. ENGLISH SEMESTER-2 LITERARY THEORY AND CRITICISM-1	● This paper helps students to ingrain the mind towards creative writing, critical thinking and critically analysing. ● It helps students to learn different theories and concepts of literature, which help them further to write critical reviews and critical appreciation
	M.A. ENGLISH SEMESTER-2 COMMUNICATION SKILLS	● This paper help students to understand and apply knowledge of human communication and language processes at events occur around them ● It will help students to increase their ability to persuade people to listen and think about their ideas and vision
	M.A. ENGLISH SEMESTER-3 ENGLISH POETRY-3	● This course introduce students to English poetry of Victorian and modern era ● This paper help students to learn more about the life of people in the age of industrialisation, and their pain during World War I and World War II ● Through this people students learn about poetic devices like blank verse, free verse etc. How these devices help poet to pour their emotion in poetr
	M.A. ENGLISH SEMESTER-3 ENGLISH DRAMA-2	● This course help students understand the psychological and political conditions of people in post-modern as well as modern age ● It help students to understand, dramatic techniques and themes of drama like existentialism etc.
	M.A. ENGLISH SEMESTER-3 LITERARY THEORY AND CRITICISM-2	● It aims to introduce students to thearetical moments and critical terminology, like marnism,post- modernism, formalism etc. ● It also helps them to apply their theories read in this paper on other text prescribed in syllabus
	M.A. ENGLISH SEMESTER-3 LITERATURE AND GENDER	● This paper addresses the conventional classification of gender in terms of male-female binary ● This course help students to understand the operation of gender and gender hierarchies in society
	M.A. ENGLISH SEMESTER-3 POSTCOLONIAL STUDIES	● It Enable students to understand the concept of power relation and interaction between colonial forces and natives. ● It acquit them with varoitexts which contributed in creating awareness towards process of decolonisation.
	M.A. ENGLISH SEMESTER-3 WORLD FICTION	● To introduce students to the social political and literary terms of the English fiction of the 19th century all around the world. ● To encourage students exploring the concept of classical economics and to show the prevailing themes of woman and feminity, wealth, psychological, self-destruction, and Power and creative imagination in the 19th century. ● To enable the students in the formation of critical analysis, and the recognition of stylistic language and appreciation of the works prescribed in

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		the coursework
	M.A. ENGLISH SEMESTER-4 INDIAN WRITING IN TRANSLATION	● To introduce the students to the cultural and literally heritage to the critical study of Indian books in translation ● To get the student acquainted with the historical, social political and religious trends in the different eras and different places ● Enable the students to read and understand about the rich classical texts from Indian writings ● To make the students familiar with the major contribution of Indian writers in English and to expose the students to the artistic and innovative use of language employed by the writers
	M.A. ENGLISH SEMESTER-4 WORLD POETRY	● This people inculcate a deeper appreciation of cultural diversity by introducing them to poetry from a variety of cultures throughout the world ● To help the students to improve their understanding of the world the poet lived in. ● To recognise poetry from a variety of cultures ,languages and historic period
	M.A. ENGLISH SEMESTER-4 WORLD DRAM	● It helps them to understand the structure of a play and learn the dramatic devices used in writing a play. ● To interpret literary text in English, by nurturing and utilising their ability to understand drama in a skilled, knowledgeable and ethical manner.
	M.A. ENGLISH SEMESTER-4 LITERARY THEORY AND CRITICISM-3	● To introduce students to emerging trends of literary theory and its interface with literature and culture and familiarise them with basic critical concept of various Critical theories. ● To widen the knowledge of literary theory and focuses on their importance.
	M.A. ENGLISH SEMESTER-4 FILM STUDIES	● To introduce student to approach cinema critically. ● To learn basic concept and history of filmmaking. ● To make student's familiar with good film and its world.
	M.A. ENGLISH SEMESTER-4 WORLD FICTION	● To introduce student to approach cinema critically. ● To learn basic concept and history of filmmaking. ● To make student's familiar with good film and its world

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

M.A. (ECONOMICS)

	M.A ECONOMICS SEMESTER-1 MICRO ECONOMICS-1	● It will familiar students on creating an understanding among students on the basic reasoning of Economics. ● It will make students aware about how various economic agents behave optimally given the scare economic resource and other constraints. ● Students are better able to understand various economic issues and applied part of the economics. ● A comprehensive knowledge of Micro Economics will empower students to explain the social reality with better arguments and optimum solutions.
	M.A ECONOMICS SEMESTER-1 MACRO ECONOMICS-1	● Students will be able to explain the concept of opportunity costs, trade –off and benefits of economics. ● Students will learn the concept of fiscal and monetary policies and their effect on economy. ● It will demonstrate knowledge of laws of supply and demand and equilibrium. ● Students will be familiar about a clear picture of circular flow model.
	M.A ECONOMICS SEMESTER-1 ECONOMIC GROWTH AND DEVELOPMENT	● Students would be acquainted with the various perspectives of economic growth and its relevance and familiar with factors affecting economic growth and development. ● Students would understand the conceptual bases of income measurement, physical quality of life index, poverty, inequality and development gap and role of various institutions in economic growth and development. ● Students would have knowledge about the nature and classical theories of development and able to apply economic theories and concepts to contemporary social issues, as well as formulation and analysis of policy and recognize the role of ethical values in economic decisions. ● Students would learn the key tools to analyze agricultural economies, with an eye towards understanding a wide array of impacts, from agricultural policies to trade and climate change and what the role agriculture and industry have in economic development. ● Impart understanding of the basic assumption and features of economic growth and development and Provide understanding of the relevance of historical perspective of economic growth. ● To impart theoretical knowledge about the concepts of poverty, inequality and development gap and explore diverse dimension and measures of development, as well as the application of microeconomic analysis to issues of development in poor countries.
	M.A ECONOMICS SEMESTER-1 MATHEMATICS FOR ECONOMICS	● Students will learn different types of functions and their applications and will be familiar with the maxima and minima of functions. ● It will impart knowledge about the use of Lagrange multiplier methods and gain knowledge about the use of net present value and other related concepts. ● The course will introduce the concepts of differentiation and integration and application in economics. ● The course will impart knowledge of matrices and determinants to the students and their applications in economics. ● The course will form the base for higher studies in research work.
	M.A	● It will familiarize the students with different types of economic models.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

	ECONOMICS SEMESTER-2 MICRO ECONOMICS-2	● Students will get to know the different market structure. ● It will provide information to the students about the distribution of income and wealth.
	M.A ECONOMICS SEMESTER-2 MACRO ECONOMICS-2	● It will help the students to apply supply and demand models to analyze responses of market to external events. ● It will help students to describe ISLM model. ● The course will illustrate the role of financial institutions in the economy. ● Students will be able to explain concept of gross domestic product, inflation and unemployment.
	M.A ECONOMICS SEMESTER-2 STATISTICS FOR ECONOMICS	● Students would learn the common statistical techniques and terminologies, understand the concept of a frequency distribution for sample data, and able to summarise the distribution by diagrams and statistics. ● Students would be able to apply fundamental concepts and use appropriate software tools for data summary and exploratory data analysis and interpret examples of methods for summarising data sets. ● Students would develop an understanding of the basic concepts of probability, random variables, and sampling distribution of a statistitcs and learn the measurement of central tendency, hypothesis testing, analysis of variance and multiple regression and correlation analysis. ● Students would become familiar with the sources of vital statistics data, how to interpret such data and how to perform basic tests to evaluate them which will help students in their doctoral research. ● To make the students familiar with the terminology of statistical terms: Population, Sample, Parameter, Statistic, and Descriptive Statistic. ● To provide an understanding for the students on statistical concepts to include measurements of location and dispersion, probability, probability distributions, sampling, estimation, hypothesis testing, regression, and correlation analysis, multiple regression and business/economic forecasting and to make them familiar with binomial, Poisson, normal and log-normal probability distributions.
	M.A ECONOMICS SEMESTER-2 MONEY,BANK AND SUPPLY	● Demonstrate understanding of basic concept and policies of money and its origin and function and understand the concept of demand for money and theories related to demand for money and money supply. ● Explain the term structure of interest rate and concept of monetary policy and explain the process of transmission mechanism in classical and keynesian. ● Demonstrate understanding the concept of central bank and commercial bank and development and reform is in banking industry and evaluate RBI monetary policy. ● Familiarise with the structure of financial system of India
	M.A ECONOMICS SEMESTER-3 PUBLIC ECONOMICS	● The students would learn of the feature the federal structure and financial relationship among them. ● The course would develop the analytical ability of students to distinguish between beneficial and detrimental effects of a government policy and their effect on macroeconomics framework of an economy. ● It will helps students to critically analyse the fiscal reforms and policy choices of the government in developed and developing countries.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

	M.A ECONOMICS SEMESTER-3 INTERNATIONAL ECONOMICS	● Establish the relationship between foreign trade Theory and economic development and explain how product differentiation leads to intra industry trade. ● Explain how international trade can result from economies of scale and demonstrate the basic understanding of the terms of trade. ● Understand the effect of a change in the exchange rate on nations current account and explain adjustment mechanism of balance of payment and policies. ● Explain the relation of various international institution with India
	M.A ECONOMICS SEMESTER-3 INDIAN ECONOMICS-1	● To have knowledge about the issues in Indian Economy like planning, poverty, unemployment etc. ● To know about relationship between monetary policy, fiscal policy and economic development. ● To know about framework of policy making for the development of Indian economy ● To know about the preparation of budgeting and its utilization for Indian economy.
	M.A ECONOMICS SEMESTER-3 BASIC ECONOMETRICS	● Course work provides a path to follow research in general area of economics and business and understanding of primarily about estimation and hypothesis testing. ● The parameter being estimated and tested are not just means and variances but relationship between variables, which is much of economics and other social sciences. ● To familiarise the students to study economics with an applied approach and follow research in general area of economics and business. ● Students would gain understanding of primarily about estimation and hypothesis testing and parameter being estimated and tested are not just means and variances but relationship between variables, which is much of economics and other social sciences. ● To familiarise the students to study economics with an applied approach.
	M.A ECONOMICS SEMESTER-3 G-1 AGRICULTURAL ECONOMICS	● Course provides knowledge agricultural background, farm and agro business activities, agri finance and management and applied part of economics instead theoretical, which deals with allocation of land under various crops, specialization, diversification and other policy amplifications. ● Course offer relevant production and various techniques to understand agri production, cost benefit analysis and enhance learner to make frontier-production function at least cost. ● Course provides knowledge agricultural background, farm and agro business activities, agri finance and management and introduces learner applied part of economics instead theoretical, which deals with allocation of land under various crops, specialization, diversification and other policy amplifications. ●Course offer relevant production and various techniques to understand agri production, cost benefit analysis and enhance learner to make frontier-production function at least cost.
	M.A ECONOMICS SEMESTER-3 G-1 RURAL	● Gain insight into the social economic structure of rural India and understand the prospects and problems of rural development in India. ● Analyse critically alternative Rural development policies in terms of the potential impact on rural poverty, equity and economic growth, taking account

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

	DEVELOPMENT	of different religion and geographical circumstances ● Explain and critically review current debate in Rural development and evaluate past and existing attempt to supply Rural services such as infrastructure, finance, research and extension, health and education. ● Critically evaluate the plans and strategy for rural development and various alternatives of livelihood for rural development.
	M.A. (ECONOMICS) SEMESTER-4 PUBLIC ECONOMY-2	● The students would learn of the feature the federal structure and financial relationship among them. ● The course would develop the analytical ability of students to distinguish between beneficial and detrimental effects of a government policy and their effect on macroeconomics framework of an economy. ● It will helps students to critically analyse the fiscal reforms and policy choices of the government in developed and developing countries.
	M.A. (ECONOMICS) SEMESTER-4 ECONOMY IN HARYANA	● Students would know about the economy of India since British period to independence of India. ● Student would know about the functioning of economic system. ● It will impart knowledge about the trends and pattern in the structure of population and agriculture overtime.
	M.A. (ECONOMICS) SEMESTER-4 INDIAN ECONOMY-2	● To have knowledge about the issues in Indian Economy like planning, poverty, unemployment etc. ● To know about relationship between monetary policy, fiscal policy and economic development. ● To know about framework of policy making for the development of Indian economy ● To know about the preparation of budgeting and its utilization for Indian economy.
	M.A. (ECONOMICS) SEMESTER-4 G-2 POPULATION ECONOMY	● Explain demographics changes in India and their major determinants. ● Apply demographic concepts and population theories to explain past and present population characteristics. ● Explain the concept of migration and causes and consequences of it Assess the relationship between demographic changes and policy and structure of population and aging affect economy and also explain population affect economic development and relationship between morality and its impact on economic development.
	M.A. (ECONOMICS) SEMESTER-4 G-2 ECONOMIC ENVIRONMENT OF BUSINESS	● Demonstrate understanding of basic concepts of business, environment and environment forecasting techniques ● Analyse the impact of economic reforms. ● Carry out a brief review of industrial policy pre-and post and independence phase and monetary and fiscal policy. ● Carry out the study of business environment at international level and explain the role of MNCs in development of India

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

M.Sc(MATHEMATICS)

	M.Sc(MATHEMATICS) ABSTRACT ALGEBRA	After the completion of the course, students will be able to : ● Apply group theoretic reasoning to group actions. ● Learn properties and analysis of solvable & nilpotent groups, Noetherian & Artinian modules and rings. ● Apply Sylow's theorems to describe the structure of some finite groups and use the concepts of isomorphism and homomorphism for groups and rings. ● Use various canonical types of groups and rings- cyclic groups and groups of permutations, polynomial rings and modular rings. ● Analyze and illustrate examples of composition series, normal series, subnormal series.
	M.Sc(MATHEMATICS) REAL ANALYSIS	● Understand Riemann Stieltjes integral, its properties and rectifiable curves. ● Learn about point wise and uniform convergence of sequence and series of functions and various tests for uniform convergence. ● Find the stationary points and extreme values of implicit functions. ● Be familiar with the chain rule, partial derivatives and concept of derivation in an open subset of Rn
	M.Sc(MATHEMATICS) DIFFERENTIAL EQUATIONS AND CALCULAS OF VARIATIONS	● Understand the methods to reduce Initial value problems associated with linear differential equations to various integral equations. ● Categorise and solve different integral equations using various techniques. ● Describe importance of Green's function method for solving boundary value problems associated with non-homogeneous ordinary and partial differential equations, especially the Sturm-Liouville boundary value problems. ● Learn methods to solve various mathematical and physical problems using variational techniques
	M.Sc(MATHEMATICS) MATHEMATICAL STATISTICS	● Understand the mathematical basis of probability and its applications in various fields of life. ● Use and apply the concepts of probability mass/density functions for the problems involving single/bivariate random variables. ● Have competence in practically applying the discrete and continuous probability distributions along with their properties. ● Decide as to which test of significance is to be applied for any given large sample problem
	M.Sc(MATHEMATICS) MECHANICS-1	● Be familiar with the concepts of momental ellipsoid, equimomental systems and general motion of a rigid body. ● Understand ideal constrains, general equation of dynamics and Lagrange's equations for potential forces. ● Describe Hamiltonian function, Poincare-Carton integral invariant and principle of least action. ● Get familiar with canonical transformations, conditions of canonicity of a transformation in terms of Lagrange and Poisson brackets.
	M.Sc(MATHEMATICS) MEASURES AND	● Describe the shortcomings of Riemann integral and benefits of Lebesgue integral.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

	INTEGARTION	● Understand the fundamental concept of measure and Lebesgue measure. ● Learn about the differentiation of monotonic function, indefinite integral, use of the fundamental theorem of calculus.
	M.Sc(MATHEMATICS) COMPLEX ANALYSIS	● Be familiar with complex numbers and their geometrical interpretations. ● Understand the concept of complex numbers as an extension of the real numbers. ● Represent the sum function of a power series as an analytic function. ● Demonstrate the ideas of complex differentiation and integration for solving related problems and establishing theoretical results. ● Understand concept of residues, evaluate contour integrals and solve polynomial equations.
	M.Sc(MATHEMATICS) DIFFERENTIAL GEOMETRY	● Demonstrate the idea of Normal tangent curvilinear co-ordinates. ● Understand the concept of Geodesics property ● Be familiar with Torsim of geodesic ● Learn about Curve, tangent, surface etc.
	M.Sc(MATHEMATICS) DISCRETE MATHEMATICS	● Be familiar with fundamental mathematical concepts and terminology of discrete mathematics and discrete structures. ● Express a logic sentence in terms of predicates, quantifiers and logical connectives. ● Use finite-state machines to model computer operations. ● Apply the rules of inference and contradiction for proofs of various results. ● Evaluate boolean functions and simplify expressions using the properties of boolean algebra.
	M.Sc(MATHEMATICS) ANALYSIS NUMBER THEORY	● Be familiar with Euler functions and its theorem. ● Understand the concept of Residue Theorem.
	M.Sc(MATHEMATICS) SEISOMOLOGY	● Student will Study the concept of Earthquakes. ● Get knowledge about Concept of wave equation. ● Learn about Types of Waves and waves propagation ● Know the Concept of elastic waves through the earth
	M.Sc(MATHEMATICS) MATHEMATICAL MODELLING	● Understand the core principles of mathematical modeling. ● Apply precise and logical reasoning to problem solving. ● Frame quantitative problems and model them mathematically. ● Analyze the importance of partial differential equations in mathematical modeling. ● Formulate the observable real problem mathematically.
	M.Sc(MATHEMATICS) MECHANICS OF SOLIDS	● Get familiar with Cartesian tensors, as generalization of vectors, and their properties which are used in the analysis of stress and strain to describe the phenomenon of solid mechanics. ● Analyse the basic properties of stress and strain components, their transformations, extreme values, invariants and Saint-Venant principle of elasticity. ● Demonstrate generalized Hooke's law for three dimensional elastic solid which provides the linear relationship between stress components and strain components.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

M.Sc CHEMISTRY

	M.Sc(CHEMISTRY) SEMESTER-1 INORGANIC CHEMISTRY-1	After the completion of the course, students will be able to : ● Explain bonding in main group compounds. ● Predict the shapes and determine the energetic of hybridization of main group compounds. ● Explain mechanisms of ligand displacement reactions in octahedral and square planar complexes. ● Understand the structures and properties of isopoly and heteropoly acids and salts. ● Explain crystal structures of selected binary and ternary compounds.
	M.Sc(CHEMISTRY) SEMESTER-1 PHYSICAL CHEMISTRY-1	● Various concepts of quantum mechanics & wave mechanics ● Detailed application & need of first & second law of thermodynamics ● Detailed discussion on Debye Huckel theory for Solutions.
	M.Sc(CHEMISTRY) SEMESTER-1 ORGANIC CHEMISTRY-1	● Differentiate chiral and achiral molecules. ● Know the relationship between enantiomers and their specific rotations. ● Differentiate simple synthesis and asymmetric synthesis of organic molecules. ● Deliver the importance of reaction mechanism. ● Analyse the structure of carbohydrates, natural and Synthetic Dyes.
	M.Sc(CHEMISTRY) SEMESTER-1 INORGANIC CHEMISTRY-1 (PRACTICAL)	● Determine iodide, Hydrazine and Antimony (III) using Potassium Iodide Determine Antimony (III), Aluminum, Magnesium and Zinc using Potassium bromated. ● Determine Calcium, Copper and Barium using EDTA (forward and back titrations) ● Determine strengths of metal ions in the presence of masking agents. ● Synthesize selected metal acetylacetonato complexes employing green methods
	M.Sc(CHEMISTRY) SEMESTER-1 PHYSICAL CHEMISTRY-1 (PRACTICAL)	● Describe various conductometric titrations of Strong acid/Strong base, Weak acid /Weak base, Strong acid/Weak base and Weak acid/Strong base. ● Describe application of thermochemistry in determination of heat of neutralization. ● Know the handling of instruments such as refractometer.
	M.Sc(CHEMISTRY) SEMESTER-1 ORGANIC CHEMISTRY-1 (PRACTICAL)	● Demonstrate knowledge of separation of organic compounds from binary mixture. ● Recognize different types of procedures for separation, identification and purification of organic compounds. ● Apply basic chemical concepts to write the mechanism of the derivatives. Describe different methods for separation of mixtures.
	M.Sc(CHEMISTRY) SEMESTER-1 SPECTOSCOPY-1	● Introduction and understanding of Electronic Spectroscopy like UV-Visible phenomenon, theory of electronic spectroscopy, instrumentation and sampling and Infrared Spectroscopy: Principle, units of frequency, wavelength and wavenumber; molecular vibrations, factors influencing vibrational frequencies, Instrumentation. ● Introduction to Nuclear Magnetic Resonance Spectroscopy.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		● Introduction to Mass Spectrometry like ion production - EI, CI, FD and FAB, factors affecting fragmentation, ion analysis, ion abundance. ● General considerations to NMR Spectroscopy and Hetero nuclear Coupling General considerations
	M.Sc(CHEMISTRY) SEMESTER-2 INORGANIC CHEMISTRY-2	● Explain bonding in transition metal complexes. ● Derive spectroscopic states from spectroscopic terms and Interpret Orgel and Tanabe-Sugano diagrams. ● Explain electronic spectra of complexes. ● Apply fundamentals of magneto chemistry in structure determination. ● Explain structure and bonding in selected metal clusters and transition metal complexes.
	M.Sc(CHEMISTRY) SEMESTER-2 PHYSICAL CHEMISTRY-2	● Various concepts of quantum mechanics and their applicaitons. ● Detailed application & third law of thermodynamics and systems of one component as well as multi-component systems. ● Mechanism and further studies in chain reactions Ion transport in solutions.
	M.Sc(CHEMISTRY) SEMESTER-2 ORGANIC CHEMISTRY-2	● Identify and differentiate the aromatic and aliphatic nucleophillic substitution reactions ● Be able understand all different kind of mechanisms given by different compounds ● Know about the regio and chemoselectivity, and different type of elemination and addition reactions ● Develop capacity to solve the organic reaction mechanism related problems. ● Develop a clear understanding about the reactions for addition to the carbon-carbon and carbon-hetero bond.
	M.Sc(CHEMISTRY) SEMESTER-2 STATISTICS FOR CHEMISTS	● Introduction to Measures of Central Tendency: Mean, median and Mode. ● Measures of Dispersion: Range, Mean Deviation, Standard Deviation, Coefficient of Variation; Moments,Measures of Skewness and Kurtosis and Probability Theory. ● Random variables: Discrete and Continuous Random Variables. ● Distribution Functions and properties; Discrete Probability distributions: Binomial, Poisson and Geometric and continuous Probability distributions. ● Testing of hypothesis and sampling distribution ● Learn about correlation, curve fitting and regression analysis.
	M.Sc(CHEMISTRY) SEMESTER-2 IT SKILLS	● Recognize the different parts of the computer and their functioning ● Describe the computer applications in different fields. ● The problem identifications and their solutions by flow charts and decision tables.
	M.Sc(CHEMISTRY) SEMESTER-2 INORGANIC CHEMISTRY PRACTICAL-2	● Separate and determine binary mixtures of metal ions using gravimetric and volumetric methods ● Determine strengths of Ferrous, Oxalate and Nitrite ions using Cerimetry.
	M.Sc(CHEMISTRY) SEMESTER-2 PHYSICAL	● Describe various potentiometric titrations of Strong acid/Strong base and Weak acid/Strong base etc. ● Describe the concept of pH through working of instrument like pH meter.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

	CHEMISTRY PRACTICAL-2	● Determine partition coefficient and equilibrium constant of various systems
	M.Sc(CHEMISTRY) SEMESTER-2 ORGANIC CHEMISTRY PRACTICAL-2	● Handle organic chemicals in a safe and competent manner. ● Perform the standard techniques used in practical organic chemistry. ● Carry out multistep synthesis of organic compounds following a prescribed procedure. ● To develop skills to determine the mechanism of the performed practicals. Characterize and purify the synthesized compounds.
	M.Sc(CHEMISTRY) SEMESTER-3 SPECTROSCOPY-2	● Introduction to Rotational Spectra, spectra of polyatomic linear molecules and symmetric top molecules. ● Classical and quantum theories, polarization of light and the Raman effect, depolarization of Raman lines, pure rotational Raman spectra of linear molecules, vibrational Raman spectra, mutual exclusion principle. ● Basic principles of Electron Spin Resonance Spectroscopy, experimental technique and Mossbauer Spectroscopy. ● Introduction to Atomic Absorption Spectroscopy and its basic principles Theory of flame photometry and Fundamental concepts of colorimetry.
	M.Sc. (CHEMISTRY) SEMESTER-3 ORGANOTRANSITION METAL CHEMISTRY	● Define and identify an organometallic compound ● Write their structure, synthesis and reaction mechanism. ● Apply their properties for different applications like polymerization, catalytic hydrogenation etc. ● Comment on their kinetics and stability
	M.Sc.(CHEMISTRY) SEMESTER-3 ADVANCED QUANTUM CHEMISTRY	● Schrodinger wave equation for three-dimensional Rigid rotator and its solution in quantum mechanics. ● Chemical bonding by Valance bond method, valance bond method to hydrogen, hydrogen molecule ion. ● Quantum mechanical treatment of Helium atom and the failure of rigorous quantum mechanical method. ● Huckel molecular orbital (HMO) theory of linear and cyclic conjugated Systems, Applications of HMO theory.
	M.Sc.(CHEMISTRY) SEMESTER-3 CONCERTED REACTIONS AND PHOTOCHEMISTRY	● Woodward - Hoffmann correlation diagram. FMO & PMO approach, Electrocylic reaction - conrotatory and disrotatory motions. ● Sigmatropic Rearrangements-suprafacial and entarafacial shifts of H, sigmatropic shifts involving carbon moieties, retention and inversion of configuration. ● Photochemistry of carbonyl compounds Photo-Fries rearrangement, photolysis of nitrile esters and Barton reaction,Hoffman-Loeflller-Freytag reaction. ● Synthesis of vitamin D.
	M.Sc.(CHEMISTRY) SEMESTER-3 INTRUMENTAL TECHNIQUES-1	● Deliver the importance of general spectroscopic techniques. ● Understand the need to increase Nanotechnology awareness ● Know the processing of some nanoprticles ● Explain the principles of the most important liquid and gas chromatography. ● Acquire some technical knowledge of gas and liquid chromatography,

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		and in capillary electrophoresis.
	M.Sc.(CHEMISTRY) SEMESTER-3 ADVANCED ELECTRO CHEMISTRY	● Introduction to potential difference across electrified interface, concept of polarizable and non-polarizable interface, Thermodynamics of polarizable interface ● Electrochemical principles of corrosion and Types of Corrosion. ● Batteries and its Characteristics specification, components, Lead storage battery, Dry cell, Silver-Zinc cell, Sodium-Sulphur cell and Ni- Cd Battery, li-ion batteries.
	M.Sc.(CHEMISTRY) SEMESTER-3 REAGENTS FOR ORGANIC SYNTHESIS	● Principle, reactions and mechanism of following oxidising agents ● Principle, reactions and mechanism of following reducing agents: ● Preparation, properties and applications of reagents in organic synthesis with mechanistic details.
	M.Sc.(CHEMISTRY) SEMESTER-3 MODERN CONCEPTS OF INORGANIC CHEMISTRY	● Classification, types of inorganic polymerization and Reaction in non-aqueous media with respect to H2SO4, BrF3, N2O4 and phosphoryl Chloride. ● Isopoly and Heteropoly acids and salts of Mo and W. ● Absorption, excitation, photochemical laws, quantum yield,electronically excited state s lifetime measurements of times. ● Fundamental particles of nucleus (nucleons): concept of nuclides, representation of nuclides. Isobars and isotopes specific examples
	M.Sc.(CHEMISTRY) SEMESTER-3 BIOPHYSICAL AND SOLID STATE CHEMISTRY	● Introduction to Photosynthesis, photosynthetic pigments and their absorption spectra, energy transfer and light harvesting complexes. ● Permeability of membrane for different types of molecule. ● Introduction to Crystal structure and crystal chemistry. ● Classification of defects, the Kroger-Vink notation for crystal defects.
	M.Sc(CHEMISTRY) SEMESTER-3 ADVANCED TOPICS IN ORGANIC CHEMISTRY	● Principle of Green chemistry and its applications Renewable energy resources: fossil fuels, biomass, solar power, fuel cell ● Chromatography and its Types: Ion exchange chromatography, planar chromatography ● Introduction, history, approximations to the Schrödinger equation
	M.Sc(CHEMISTRY) SEMESTER-4 BIOINORGANIC AND MEDICINAL CHEMISTRY	● Know about Bioinorganic chemistry of Na+, K+, Mg2+ and Ca2+, Ionophores, active transport of cations across membranes, sodium pump, Calcium pump, Calcium carriers. ● Metal Storage Transport and Biomineralization. ● Metallo-protein and enzymes like Zinc Enzymes. ● Biochemical basis of essential metal deficient diseases; Iron, copper and zinc deficiencies and their therapies.
	M.Sc(CHEMISTRY) SEMESTER-4 STATISTICAL AND NON-EQUILIBRIUM THERMODYNAMICS	● Molecular partition function of an ideal gas, Expressions for translational, rotational, vibrational, nuclear and electronic partition function. ● Heat capacities of monoatomic solids: Einstein theory and Debye theory. ● Diffusion, Fick's first law of Diffusion, Diffusion coefficient, Fick's second law Of Diffusion, Einstein-Smoluchowski equation. ● General theory of non-equilibrium processes, thermodynamic criteria for non-equilibrium states, entropy production and entropy flow.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

	M.Sc(CHEMISTRY) SEMESTER-4 BIOORGANIC AND MEDICINAL CHEMISTRY	● Introduction to Amino Acids, Peptides and Proteins and enzymes Biological function of coenzyme. ● Introduction, historical development, factors affecting development of new drugs, concept of lead compounds and its modification. ● Introduction, general mode of action, synthesis and medicinal uses of important drugs.
	M.Sc(CHEMISTRY) SEMESTER-4 INSTRUMENTALS TECHNIQUES-2	● Use of symmetry to determine the number of active infrared and Raman lines, Application of resonance Raman Spectroscopy particularly for the study of active sites of metalloproteins as myoglobin and haemoglobin. ● Contact shift its origin and application, Pseudo contact shift, Diamagnetic complexes, Spectra of free radicals, Lanthanide shift Reagents Quadrupolar moment, energy lends of a quadrupolar nuclease and effect of asymmetry parameters and energy lends. ● Introduction, principles of fluorescence and phosphorescence, interpretation of fluorescence spectra.
	M.Sc(CHEMISTRY) SEMESTER-4 CHEMISTRY OF POLYMERS	● Introduction: Basic concepts of polymers science, the rise of macromolecular science ● Learn about Types of polymerization. ● Concept of molar mass averages: number average, mass average, z-average, Viscosity average molar mass, Methods of determination of molecular weights. ● Introduction, classification, conduction mechanism, doping of conducting polymers and its significance
	M.Sc(CHEMISTRY) SEMESTER-4 HETEROCYCLIC CHEMISTRY AND DISCONNECTION APPROACH	● Replacement and Systematic (Hantzsch-Widman) nomenclature for monocyclic. ● Methods of synthesis and reactions including mechanism Of the five -membered 1,2- and 1,3-heterocycles. ● An introduction to synthons and synthetic equivalents, disconnection approach, functional group inter-conversions. ● Know about One Group C-C Disconnections and Two Group C-C Disconnections**.**
	M.Sc(CHEMISTRY) SEMESTER-4 ADVANCE TOPIC IN INORGANIC CHEMISTRY	● Molecular recognition: Molecular receptors for different types of molecules including anionic substrates, design and synthesis of co-receptor molecules. ● Nano materials, Properties of nano structured materials (opticals, magnetic, chemical and photo catalytic properties), Techniques for their synthesis. ● Defects and Non-stoichiometry: Intrinsic and extrinsic defects- point defects, line and plane defects, vacancies ● Solid State Lasers (Ruby, YAG and tunable lasers), Inorganic phosphor materials
	M.Sc(CHEMISTRY) SEMESTER-4 FAST KINETICS AND SURFACE PHENOMENON	● Introduction, Physical adsorption & Chemisorptions, Freundlich Adsorption isotherm, Langmuir Theory of adsorption. ● Surface tension, capillary action, pressure difference across curved surface (Laplace equation), vapour pressure of droplets (Kelvin equation), surface films on liquids (electro kinetic phenomenon).

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		● Potential energy surfaces, Theories of unimolecular reactions. ● Study of fast reaction, flash photolysis, Flash Spectroscopy, Kinetic Spectrophotometry, Absorption of photoflash energy.
	M.Sc(CHEMISTRY) SEMESTER-4 CHEMISTRY OF NATURAL PRODUCTS	● Definition, nomenclature and physiological action, occurrence, isolation Structure elucidation of alkaloids. ● Classification, general aspects of structure determination of terpenoids, biogenetic isoprene rule. Structure, stereochemistry, synthesis of Geraniol, α-terpeneol, α-pinene, camphor. ● Isolation, nomenclature basic skeleton, Diel's hydrocarbon, stereochemistry, structural elucidation with special reference to Cholesterol, Bile acid and cardiac glycosides. ● Occurrence nomenclature and general methods of structure determinations, isolation and synthesis of Cyanin, Quercetin, Diadzein, and Chrysin.
	M.Sc(CHEMISTRY) SEMESTER-4 COMMUNICATION SKILLS	● Human Communication, Verbal and Non Verbal Communication, Barriers to communication; the seven C‟s of effective communication. ● Preparing for interviews, CV/ Biodata, Group Discussion, Public Speaking, Mass Communication. ● Making a Short Formal Speech, Describing People, Places, Events and Things. ● Understanding Telephone Communication. ● Personal Grooming; Assertiveness; Improving Self-Esteem; Significance of Critical Thinking; Confidence Building; SWOC analysis.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

M.Sc PHYSICS

	M.Sc (PHYSICS) SEMESTER 1 MATHEMATICAL PHYSICS	After the completion of the course, students will be able to : ● Know Matrice and its types(Orthogonal, Unitary and Hermitian matrices, Eigenvalues and eigenvectors of matrices, Matrix diagonalization) and Integral Transforms. ● Learn Solution of Legendre's differential equation, Solution of Bessel's differential equation ● Learn Solution of Laguerre and Hermite's differential equations. Polynomials and Generating function, recurrence relations, orthonormal property, Rodrigue's formula. ● Functions of a complex variable and calculus of residues.
	M.Sc (PHYSICS) SEMESTER 1 CLASSICAL MECHANICS	● Introduction to Classical Mechanics and D' Alembert's principle, Lagrange's equations; dissipative forces generalized coordinates and momenta. ● Hamilton's principle, Derivation of Lagrange's equations from Hamilton's principle, Principle of Least Action and its applications. ● Poisson bracket, special cases of Poisson bracket, Poisson theorem, Poisson bracket and canonical transformation, Jacobi identity and its derivation. ● Two-body central force problem and H-J theory.
	M.Sc (PHYSICS) SEMESTER 1 QUANTUM MECHANICS-1	● Recapitulation of basic concepts: Why quantum mechanics? Two-slit experiment with radiation and particles and Schrödinger wave Equation. ● Matrix formulation of Quantum Mechanics Preliminaries like Hermitian and unitary matrices, Transformation and diagonalization of matrices, Matrices of infinite rank etc. ● Solution of three-dimensional systems like the three dimensional harmonic oscillator in both Cartesian and spherical polar coordinates, eigenvalues, eigenfunctions and the degeneracy of the states. ● Quantum theory of Angular Momentum and Spin angular momentum, Wave function including spin, Spin eigenfunctions, Pauli spin matrices and Addition of angular momenta.
	M.Sc (PHYSICS) SEMESTER 1 ELECTRONIC DEVICES AND CIRCUITS-1	● Basics of semiconductor devices like Band gap, types of semiconductor: intrinsic and extrinsic, direct and indirect band gap and diodes. ● Basic circuit and operation of JFET, Types of JFET: n channel JFET & p channel JFET, Characteristics of JFETs, Advantages and disadvantages of JFET. ● Node theorem, mesh theorem, Millman's theorem, thevenin's theorem, Norton's theorem and superposition theorem. ● Introduction, Difference between voltage amplifier and power amplifier, Class A power amplifier, Transformer coupled class A amplifier, harmonic distortion in amplifiers, class A push-pull amplifier and series regulators and feedback regulators.
	M.Sc (PHYSICS) SEMESTER 1 COMMUNICATION SKILLS	● Human Communication, Verbal and Non Verbal Communication, Barriers to communication; the seven C"s of effective communication. ● Preparing for interviews, CV/ Biodata, Group Discussion, Public Speaking, Mass Communication. ● Making a Short Formal Speech, Describing People, Places, Events and

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		Things. ● Understanding Telephone Communication. ● Personal Grooming; Assertiveness; Improving Self-Esteem; Significance of Critical Thinking; Confidence Building; SWOC analysis.
	M.Sc (PHYSICS) SEMESTER 1 IT FUNDAMENTALS	● Recognize the different parts of the computer and their functioning ● Describe the computer applications in different fields. ● The problem identifications and their solutions by flow charts and decision tables.
	M.Sc (PHYSICS) SEMESTER 2 QUANTUM MECHANICS-2	● Stationary perturbation theory like Non-degenerate case- First-order and second-order corrections to energy eigenvalues and eigenfunctions. ● The WKB approximation: General formulism, validity, the connection formulae; First-order Time-dependent perturbation theory, Transition probability for constant and harmonic perturbations, Transition to a group of final states- The Fermi golden rule. ● Scattering experiments and cross-sections, Laboratory and centre-of-mass systems, Scattering amplitude and cross-section and Method of partial waves. ● Many-particle Schrodinger wave equation, Identical particles like Physical meaning of identity, Principle of indistinguishability and its consequences.
	M.Sc (PHYSICS) SEMESTER 2 NUCLEAR AND PARTICLE PHYSICS	● Two nucleon problem and nuclear forces like The deuteron: binding energy, dipole moment quadrupole moment and the evidence of non-central (Tensor) force, spin dependence of nuclear force. ● Types of nuclear reactions: compound and direct nuclear reactions, Reaction cross – section, Balance of mass and energy in nuclear reactions, Q equation and its solution. ● Nuclear Decays: Alpha (α) decay, α- disintegration energy, Range of α-particles, Range – energy relationship for α-particles and Geiger – Nuttall law. ● Units in high energy physics; Classification of particles- fermions and bosons, particles and antiparticles.
	M.Sc (PHYSICS) SEMESTER 2 SOLID STATE PHYSICS	● Crystal and atomic structure factors, Structure factor of the bcc and fcc lattices. ● Thermal propertie like Lattice (phonon) heat capacity, Einstein Model of heat capacity. ● Free electron gas model in three dimensions: Density of states, Fermi energy, Effect of temperature, Heat capacity of the electron gas, Experimental heat capacity of metals, Thermal effective mass. ● Experimental survey: Superconductivity and its occurrence, Destruction of superconductivity by magnetic fields, Meissner effect, Type I and type II superconductors, Isotope effect.
	M.Sc (PHYSICS) SEMESTER 2 ELECTRONIC DEVICES AND CIRCUITS-2	● Differential amplifier like CMRR, emitter coupled supplied with constant current, transfer characteristics of differential amplifier, differential DC amplifier. ● Applications of Op-Amp Summing and scaling, Integrator, differentiator, Filters logarithmic and anti-logarithmic amplifier. Voltage follower, voltage

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		to current and current to voltage converter. ● Switching time in a transistor, multivibrators, A stable multivibrator, Emitter coupled A stable multivibrator, Monostable multivibrator, Emitter coupled monostable multivibrator etc. ● Radiative and nonradiative transistions, basic construction, Basic construction, operation, characteristics and application of solar cell, light dependent resistance.
	M.Sc (PHYSICS) SEMESTER 3 ELECTRODYNAMICS	● Poisson and Laplace equations, Solution of Laplace equation in Rectangular coordinates and spherical coordinates, electrostatic boundary conditions. ● Electromagnetic Waves and Radiation by Moving Charges Faraday's Law, induced Electric Field, energy in magnetic fields, Maxwell's equation in free space and matter,charge and energy conservation. ● Potential formulation: Scaler and vector potential, Gauge transformations, Coulomb and Lorentz Gauge, Retarded potentials, Lienard-Wiechart potentials and fields due to moving point charge and Dipole radiation. ● The Special theory of relativity, Lorentz transformation and basic kinematic results of special relativity, structure of space-time, Review of Four vectors and Lorentz transformation in four-dimensional space.
	M.Sc (PHYSICS) SEMESTER 3 ATOMIC AND MOLECULAR PHYSICS-1	● Physical interpretation of quantum numbers, Pauli principle, Terms for equivalent & non-equivalent electron atom. ● Diatomic molecules and their rotational spectra: Types of molecules, Diatomic linear symmetric top, asymmetric top and spherical top molecules. ● Born Oppenheimer approximation, Vibrational coarse structure of electronic bands, Progression and sequences, Vibrational energy of diatomic molecule. ● Intensity of electronic bands-Frank Condon Principle, Dissociation and pre-dissociation, Dissociation energy.
	M.Sc (PHYSICS) SEMESTER 3 RADIATION PHYSICS	● Sources of Radiations: X-rays: Characteristic X-rays, Bremsstrahlung radiations, synchrotron radiation, Cherenkov radiation and Cosmic rays. ● Active Vs Passive detector, Gas filled radiation detectors: ionization chambers, proportion counters, GM counters, and Spark counter. ● Biological Effects of Ionizing Radiation: Introduction, Cell Biology: Structure and function of living cell, cell division-mitosis, meiosis and differentiation. ● Principles of Radiological Protection: Justification of Practice, Optimization of Practice, and Dose Limitations.
	M.Sc (PHYSICS) SEMESTER 3 MATERIAL SCIENCE-1	● Point Defects: vacancy, substitutional, interstitial, Frenkel and Schottky defects, equilibrium concentration of Frenkel and Schottky defects. ● Stress Strain Curve; Elastic Deformation: atomic mechanism of elastic deformation and anisotropy of Young's modulus, elastic deformation of an isotropic material. ● Solid Solutions and Intermediate Phases: phase rule, unitary & binary phase diagrams, Lever rule, Hume-Rothery rule. ● Rutherford Backscattering Spectrometry and its principle, kinematics of elastic collision and Elastic Recoil Detection Analysis and its basic principle.
	M.Sc (PHYSICS) SEMESTER 3	● Electronic States in Direct and Indirect Semiconductor Nano-crystals, Excitions in Direct and Indirect Band Gap Semiconductors.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

	PHYSICS OF NANO MATERIALS	● Quantum Confinement, Electron confinement in One, Two and Three Dimensional Infinitely Deep Square Well Potentials, Density of States and Optical Absorption in Quantum Well and Quantum wires. ● Synthesis of Zero-Dimensional Nanostructures and One-Dimensional Nanostructures and Two-Dimensional Nanostructures. ● Characterization of Nanomaterials/Nanostructures.
	M.Sc (PHYSICS) SEMESTER 3 CONDENSED MATTER PHYSICS-1	● Introduction to Semiconductor crystals like Band gap, Direct and indirect absorption processes, Motion of electrons in an energy band, Holes etc. ● Optical reflectance, Kramers-Kronig relations, Electronic inter-band transitions, Excitons: Frenkel and Mott-Wannierexcitons; Raman effect in crystals. ● Ferroelectric crystals and their classification,Landau theory of the phase transition,Anti-ferroelectricity, Ferroelectric domains, Piezoelectricity, Ferroelasticity. ● Langevin diamagnetism equation, Quantum theory of diamagnetism; Quantum theory of paramagnetism-Curie law.
	M.Sc (PHYSICS) SEMESTER 3 NUCLEAR PHYSICS	● Know about position sensitive ionization chamber, position sensitive proportional counter & multi wire proportional counter. ● Single Channel Analyzer, Multi-Channel Analyzer, CAMAC Based Data Acquisition System. ● Ion Accelerators like Ion sources- basic features of RF ion source, direct extraction negative ions source and source of negative ions by Cs sputtering. ● Calculation of critical size and mass of reactor, Basic principle of neutron detection, Basic concept of fusion reactors.
	M.Sc (PHYSICS) SEMESTER 3 ELECTRONICS-1	● Digital signals, properties of digital signal like switching time, time period and frequency, duty cycle, difference between analog signal and digital signals. ● Implementation of SOP/POS by using minimum number of two input NAND/NOR gates only, Logical venn Diagram. ● Karnaugh map, Half adder, full adder, Half-subtractor, Full subtractor, multiplexer, De-multiplexer, Encoder, Decoder, Comparator, Parity checker and generator. ● Characteristics equations for flip-flops, state transition diagrams for flip-flops. Master slave flip-flop and Registers: Shift registers and its applications.
	M.Sc (PHYSICS) SEMESTER 4 STATISTICAL MECHANICS	● Foundations of Statistical Mechanics: The macroscopic and microscopic states, Postulate of equal a priori probability, Contact between statistics and thermodynamics. ● Quantum-mechanical ensemble theory: Density matrix, Equation of motion for density matrix, Quantum-mechanical ensemble average; Statistics of indistinguishable particles. ● Ideal Fermi gas: Internal energy, Equation of state, Completely degenerate Fermi gas, electron gas in metals,thermionic emission. ● Phase transitions: Construction of Ising model, Solution of Ising model in the Bragg-William approximation.
	M.Sc (PHYSICS)	● Origin of X-Rays, X-Ray emission spectra, Dependence of position of

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

	SEMESTER 4 ATOMIC AND MOLECULAR PHYSICS-2	Emission lines onthe atomic number. ● Raman Effect - quantum theory - molecular polarizability pure rotational Raman spectra of diatomic molecules - vibration rotation Raman Spectrum of diatomic molecules. ● Applications of NMR spectroscopy. Mossbauer spectrometer, Isomer nuclear transition, resonance fluorescence, Mossbauer Effect, Mossbauer nuclei. ● ESR spectrometer, substances which can be studied by ESR, Resonance condition, Description of ESR by Precession, Relaxation mechanisms.
	M.Sc (PHYSICS) SEMESTER 4 COMPUTATIONAL PHYSICS	● Know about Errors, Differentiation and Integration and curve fitting. ● Numerical solution of ordinary differential equations: Taylor's series method, Euler's method, modified Euler's method, Forth-order Runge Kutta method. ● Gaussian Elimination method, Gauss Jordan elimination method, Matrix inversion. Eigen values and Eigen vectors: Jacobi's method for symmetric matrix. ● Input and output units, Storage unit, Arithmetic Logic unit, Control unit, Central processing unit and Fortran Programming: Data types, Arithmetic & logical expression.
	M.Sc (PHYSICS) SEMESTER 4	● Know about the tension test,the hardness test,the fatigue test and the creep test. ● Larmor frequency; Diamagnetism, magnetic susceptibility, Langevin's diamagnetism equation, Paramagnetism, Curie constant, density of states curves for a metal. ● Classification of ferro electric crystals, polarization catastrophe, Landau theory of first and second-order phase transitions, anti-ferroelectricity, ferro electric domains. ● Surface and its importance, selvedge depths of surface; Methods of Surface Analysis.
	M.Sc (PHYSICS) SEMESTER 4 EXPERIMENTAL TECHNIQUES IN PHYSICS	● Experimental Techniques to observe the defects in Lattice: Electron Microscopy: Transmission Electron Microscope (TEM) and X-ray Diffraction Technique. ● Surface Analytical Techniques: Electron Spectroscopies-Auger, XPS (ESCA), UV-photo emission, X-rayabsorption techniques. ● Opto-Electronic Devices: Solar Cells, Photo Diodes, Photo-detectors, LEDs; Data Interpretation andAnalysis. ● Spectroscopic and Scanning Probe Techniques and Detailed study of spectroscopic techniques.
	M.Sc (PHYSICS) SEMESTER 4 CONDENSED MATTER PHYSICS-2	● Temperature dependence of resistivity and Matthiesen's rule; Thermoelectric effects, Thermopower, Seebeck effect, Peltier effect, The Wiedemann-Franz law. ● Nanostructures; Imaging techniques (principle): Electron microscopy (TEM, SEM), Optical microscopy, Scanning tunneling microscopy, Atomic force microscopy. ● Electronic and ionic parts, Born-Oppenheimer Approximation; The Hartree equations, Connection with variational principle.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani

		● Expansion of wave function in basis of single- particle states, Symmetry of expansion coefficient, Normalized symmetric and anti-symmetric wave functions.
	M.Sc (PHYSICS) SEMESTER 4 NUCLEAR PHYSICS-2	● Qualitative features and phenomenological potentials, Exchange forces, generalized Pauli principle. The ground state of deuteron, Range-depth relationship for square well potential. ● Nuclear reactions and cross sections, Kinematics of the stripping and pick-up reactions, Theory of stripping and pick-up reactions. ● Liquid drop model, Outlines of Bohr and Wheeler theory of nuclear fission, Concept of magic numbers, The properties of magic nucleus, Nuclear Shell Model. ● Nuclear surface deformations, General parameterization, Types of multipole deformations, Quadrupole deformations, Symmetries in collective space.
	M.Sc (PHYSICS) SEMESTER 4 Electronics-2	● Basic circuit principles for NR switching circuits: Monostable, Bystable, A stable operations. ● Balanced modulation, filtering the signal of SSB, Phase shift method, Product detector, Explain pulse modulation. ● Silicon planer process, crystal growth, wafer production, thermal oxidation, high pressure oxidation,concentration enhanced oxidation, chlorine oxidation, lithography. ● Monolithic IC technology, BJT fabrication, PNP transistor, multi-emitter schottky transistor, superbeta transistor fabrication.

Principal
Adarsh Mahila Mahavidyalaya
Bhiwani